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## DIPHTHERIA IMMUNIZATION.

In recent years there has come into use a practical method for testing immunity to diphtheria known as the Schick test, similar to the test with vaccine virus for immunity to smallpox, and also a method for conferring on children permanent immunity to diphtheria by the injection of diphtheria toxin-antitoxin mixture. The introduction of these methods into America, and a more extensive application than has hitherto been practiced in any country, are due to the workers of the laboratory of the New York City department of health, of which Dr. W. H. Park is the head.

### The Schick Test for Immunity to Diphtheria.

The Schick test consists in the intracutaneous (not subcutaneous) injection of a small amount of diluted diphtheria toxin, a positive reaction being shown by a red papule and indicating that the subject tested has not enough antitoxin in his blood to ward off an attack of diphtheria. In this test, therefore, a reaction indicates nonimmunity. In healthy young adults somewhat less than half may be expected to give positive reactions; in children there is a larger proportion of susceptibles.

*Purpose.*—The test is useful (a) in determining the susceptibles (those with positive Schick reactions) to be immunized with a toxin-antitoxin mixture, in case more permanent protection is desired, or with antitoxin instead, if there is immediate danger of infection; and (b) in indicating that carriers of the diphtheria bacillus who happen to have slight throat symptoms, but who have given a negative Schick reaction, are not suffering from diphtheria.

*Toxin.*—The classical dose for the Schick test is one-tenth cubic centimeter of a toxin diluted so that this amount contains one-fiftieth of a minimal lethal dose for guinea pigs. Zingher, in New York, has recently used two-tenths cubic centimeter of a weaker dilution which contains one-fortieth of a minimal lethal dose in this double volume. In practice it is safer to add some such excess (25 per cent) on account of the deterioration which diphtheria toxin undergoes and to avoid interpreting a weak positive reaction as a negative. Minimal lethal doses are not readily determined and delivered with much greater accuracy than that represented by 25 per cent differences. Although only those toxins should be used which are sufficiently aged to be relatively stable, it is well to remember that diphtheria toxin is subject to loss in toxicity, especially when diluted, that the dilution

should not be made more than 12 hours before use, and that the toxin should at all times be kept in the coldest part of the ice box.

*Control.*—Since pseudoreactions may be caused by the proteins in the toxin broth and not by the true toxin, each test should be controlled by the injection, at a corresponding site on the other arm, of the same amount of similarly diluted toxin which has been heated to 75° C. for 10 minutes in order to destroy its specific toxic properties. It is advised that two test injections and two control injections be made, four in all; more definite readings are thus obtained. Pseudoreactions appear earlier and do not last as long as true reactions.

*Instruments.*—Two tuberculin syringes are needed so graduated that the dose of one-tenth cubic centimeter may be easily and accurately measured; one of these should be plainly marked and used for the unheated toxin, the other for the control. The needles, being boiled between injections, may be used interchangeably on either syringe. The needles should be of fine caliber (about 26-gauge) and kept very sharp. They are most easily manipulated if fairly short (one-fourth to one-half inch) and with a bevel not too tapering.

*Technique.*—With the usual sterile precautions, one-tenth cubic centimeter (or one-fifth cubic centimeter if the New York dilution is used) of the unheated toxin dilution is introduced intracutaneously (not subcutaneously) on the flexor surface of the right forearm, and the same amount of the control dilution on the flexor surface of the left forearm. The needle should be inserted parallel with the skin surface, far enough to avoid leakage backward along the needle track, and deep enough so that the oval opening of the needle is just visible through the epidermis. If the injection is at the proper depth it will form a white elevation in which the depressions of the hair follicles are prominent.

*Reading.*—A red area at least one-fourth inch in diameter on the right arm, distinctly more marked in 96 hours than the area on the left arm, may be taken as a positive reaction. If two injections are made on each arm, the variation in reaction caused by injecting one of the dilutions deeper than the other is balanced. The amount of discoloration where the heated toxin was injected indicates the degree of pseudoreaction.

#### **Diphtheria Toxin-Antitoxin Mixture.**

Active immunization of young children against diphtheria is useful in institutions, and in localities where prompt diagnosis and treatment of diphtheria are not assured. The most favorable age for active immunization is from six months to six years. In older children and in adults a considerable proportion of pseudoreactions to the Schick test, which offer difficulty in interpretation, may be expected, with correspondingly greater local and constitutional reactions fol-

lowing the injection of toxin-antitoxin mixture. Active immunization can not be used instead of passive immunization with antitoxin in the presence of actual exposure to diphtheria, since the active immunity is slow in developing; neither should a combination of the two methods be used simultaneously, since the 1,000 units of antitoxin used for passive immunization tends to prevent the development of immunity from the toxin-antitoxin mixture, if both are injected at about the same time.

The toxin-antitoxin mixture used in active immunization is not quite neutralized, large doses injected into guinea pigs producing some reaction; this remaining toxicity is necessary in order to stimulate the production of immunity. Only such reactions occur as are observed after typhoid immunization. In older persons who give pseudoreactions to the Schick test, a certain amount of local and constitutional disturbance may be expected. In general, young children bear the injection without any marked disturbance.

By the Schick test for the presence, or rather absence, of natural antitoxin in the patient it is found that only a certain proportion of persons are susceptible to diphtheria, therefore before active immunization a Schick test should be performed in the case of older children, and only those giving positive reactions should receive the toxin-antitoxin mixture. Children under two years of age are so generally susceptible to diphtheria that the preliminary Schick test may be omitted in their case.

As for typhoid immunization, three doses should be injected subcutaneously at about weekly to two-weekly intervals. These doses are usually 1 cubic centimeter in volume.

Six months after the first series of injections another Schick test should be performed and the few who have not developed by that time an immunity which is shown by a negative Schick reaction should receive a second series of injections with the toxin-antitoxin mixture.

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## **A REPORT ON THE SECOND ENGLISH-SPEAKING CONFERENCE ON INFANT WELFARE.**

By TALIAFERRO CLARK, Surgeon, United States Public Health Service.

The Second English-Speaking Conference on Infant Welfare was held in London, England, July 5-7, 1921, under the auspices of the National League for Health, Maternity, and Child Welfare, and was attended by approximately 600 delegates representing 26 English-speaking countries. The United States Public Health Service, the American Public Health Association, and the American Child Hygiene Association were represented by the writer.

The conference was held during the celebration of the National Baby Week, 1921, in connection with which an interesting display of the latest exhibits and posters relating to the welfare of mothers and babies had been prepared. This exhibit and also daily demonstrations on the care of the baby and free consultations and advice on the health of mothers and young children were available to visiting delegates. In addition, throughout the period of the con-



ference, a large number of infant-welfare centers, resident institutions for mothers and babies, day nurseries, and nursery schools were open for inspection by the visiting delegates under special arrangement.

The conference was formally opened by Lord Vincent Astor, the president, who in an address outlined some of the most pressing problems of maternal and infant care for consideration by the conference.

The morning and afternoon sessions of the first day were given over to the consideration of residential provision for mothers and babies. The following papers were presented:

(a) Maternity Homes, by Dr. Janet Campbell, senior medical officer, ministry of health.

(b) Provision for Blind Babies, by Miss E. Walker Finlay, representing the National Institute for the Blind.

(c) Provision for Ailing Children, by Dr. C. J. McAlister, honorary physician to the Liverpool Royal Southern Hospital and to the Royal Liverpool County Hospital for Children.

(d) The Value of Wards for Ailing Infants, by Dr. H. B. Gladstone, medical officer to the Sydenham Babies' Milk Depot, Clinics, and Hostel.

(e) Provision for Unmarried Mothers and Their Babies, by Mrs. Cyril Smithett, representing the National Council for the Unmarried Mother and her Child.

(f) Accommodation for Mothers and Infants under the Poor Law, by Miss M. E. Broadbent, manager of the Metropolitan Asylums Board and member of the St. Marylebone Board of Guardians.

(g) Some Economic and Administrative Aspects of the Problem of Residential Provision for Mothers and Babies, by Miss J. Halford, secretary National League for Health, Maternity, and Child Welfare.

In the paper on maternity homes, Dr. Janet Campbell referred to residential provision that may be made with the sanction of the ministry of health for the various conditions affecting the health and welfare of expectant and nursing mothers and children under 5 years of age, under the maternity and child welfare act, 1918, but limited her discussion to the one type of institution, namely, "maternity homes."

To date the ministry has recognized between 60 and 70 maternity homes in England and Wales with about 700 beds and some 20 proposals for new homes under consideration.

The great reduction in infant mortality rate which has taken place during the last 20 years has not been accompanied by a like lowering of the maternal mortality rate, and this in the opinion of the author emphasizes the need for maternity homes. In 1900 the infant mortality rate was 154 and the maternity mortality rate 4.8, while in 1920 the infant mortality rate was 80 and the maternity rate was 4.2. Furthermore, the death rate from septic infection in 1919 was 0.76, but in 1920 it was 1.87, the same rate which obtained in 1905.

In other words, according to the author, in spite of the knowledge of the causes and prevention of infection and the successful application of this knowledge, and of the training given to medical students and nurses in surgical technic, midwifery is almost as in the beginning of the century before the midwifery act was passed. Most maternal deaths at childbirth are preventable if proper facilities and reasonable skill are available, and deaths from septic infection should rarely be met with.

"It is a matter of common knowledge that a large proportion of the patients in gynecological out-patient departments seek advice because of the effects of bad midwifery, and that much of the chronic ill health from which so many working-class mothers suffer may be traced to the same cause." Such facts are a grave commentary upon the practice of midwifery.

To combat this loss of life and health, Dr. Campbell advised that action be directed to improving midwifery service in the homes; to increasing the accommodations in maternity homes and hospitals; to the study of the physiology of normal pregnancies, labor, and lactation, a knowledge of which is far from complete. Maternity beds are needed, said Dr. Campbell—

(a) For the relatively small number of confinements in which a serious difficulty is anticipated.

(b) For the much larger number where some abnormality is probable and where watchfulness is necessary to prevent possible mishap.

(c) For unforeseen emergencies.

(d) For the prematernity treatment of conditions likely to affect the health of mother and infant.

(e) For those women who are physically normal but who can not be confined safely and suitably in their own unsatisfactory homes.

(f) For women, especially primiparae, who would prefer to be confined in a home or hospital.

Dr. Campbell cited the advantages of the small homes and stated that the ministry of health encourages the establishment of maternity homes of 10 to 20 beds for normal and slightly abnormal cases.

In speaking of the general requirements of maternity homes, she is of the opinion that they should contain wards for lying-in patients (some of which may suitably be one, two, or three bed wards), one, or preferably two, labor rooms, a prematernity ward, a duty room, a receiving room with bathroom, properly fitted sink room, a nursery, a laundry, and separation or isolation rooms, in addition to staff quarters. Not less than 15 to 20 beds should be provided when possible, as smaller homes are more costly to maintain efficiently in proportion to the work done.

The ministry requires immediate notification of all maternal deaths which occur and an annual return showing the results of the work as a whole. A summary of returns from 50 unselected homes

for the year 1920, reported by Dr. Campbell, shows that among 9,108 women admitted, 28 cases of puerperal sepsis occurred, and there were 57 maternal deaths, including 10 from puerperal infection. In this connection, it must be remembered that a maternity home, just as a maternity hospital, may be obliged to admit moribund patients for whom little can be done, and that more claims are made upon some homes than others to admit cases which should rather be sent to a hospital if such were available.

Miss Finlay opened her paper on Residential Provision for the Care of the Blind Baby by referring to a statement by Mr. Bishop Harman that "blindness in children when traced to the original cause of the loss of sight will be found to differ in its proportion according to the age of the children under review." She gave the statistical results of the examination of infants submitted for entry into an institution for blind children founded by the National Institute for the Blind, and also results of examination of school children that were collected from the blind schools. From these statistics it is seen that of preventable causes ophthalmia neonatorum is the most frequent cause of blindness in infants under review, namely, 49.2 per cent. However, at later age, other diseases reduced the proportion of blindness due to this cause, such as the later onset of inflammatory infections, particularly those due to syphilis in the parent, so that the percentage of blindness due to ophthalmia neonatorum found in the schools for the blind was but 19.79 per cent as compared with inflammation within the eyes due to syphilis, 31.43 per cent.

Miss Finlay stated that the Government authorizes the establishment of special schools for blind children after they reach the age of 5 years. However, the period of greatest difficulty for a blind child is the first year of life, the period in which the foundation of the habits and mannerisms of man is laid down.

Until quite recently there was no school or institution that would receive a blind child until it reached the age of 5 years, when the National Institute for the Blind, under the presidency of Sir Arthur Pearson, founded and equipped a home known as Sunshine House, where such helpless ones could be cared for and the initial stages of their education begun.

According to the author Sunshine House has been an unqualified success, and the health supervision and practical education, kindergarten training, and dental training given in this institution are described in detail.

Advocating residential provision for mothers and babies, Mrs. Cyril Smithett discussed the problem of the unmarried mother and her child, and stated that in the aftermath of reconstruction there has been a decided augmentation in the numbers of what in the country villages is known as the "love child." Among the reasons

advanced for this condition she believes it is mainly due to the sudden relaxation of discipline which for the war years exercised a certain restraint on women, the craving in every girl at the present day for pleasure, and the extraordinary lack of influence on the part of the modern parent, who is apt to shirk all responsibility beyond clothing and feeding the girl.

Mrs. Smithett is of the opinion that there are not nearly enough homes to accommodate the unmarried mother and baby. She outlined the work undertaken by the National Council for the Unmarried Mother and Her Child, and described in detail the system in the homes themselves. Among other things a charge is allowed great latitude, is not hampered by petty rules and regulations, is permitted to wear clothes of her own selection, and is required to keep no regulations except those necessary in any house where girls are gathered together. In other words, the girl is treated as an ordinary human being. When she is ready to go out again into the world work is found for her when necessary and, if possible, permission to keep her child. When this is not practicable the baby is placed with a foster mother and employment is secured for the mother at sufficient wage to pay for her child's maintenance. In conclusion, Mrs. Smithett stated her objection to adoption, which, in her opinion, was bad for the mother although in some ways better for the child.

In her paper on Accommodation for Mothers and Infants under the Poor Law, Miss Broadbent stated that one of the duties of a poor-law authority is to make provision for the care of women in childbirth, and that some of the workhouses where pregnant women coming within the purview of this law are sent, especially in London and larger towns, are as good as any to be found in volunteer hospitals. However, owing to conditions surrounding the admission to these institutions under the poor law, they are unpopular. A charge is made under the law if the family is able to pay, and this necessitates a distasteful inquiry. This inquiry, coupled with the less serious drawback of the company with which she finds herself, prevents a larger number of women coming into poor-law institutions despite their excellence. Nevertheless, by reason of the interpretation of destitution under the poor law, especially in case of illness, to cover in a broad sense the lack of accommodation or care, many married women whose husbands are able and willing to pay something for them have been coming into the poor-law institutions for their confinement.

Special care is given in these institutions to women found suffering from venereal disease. They are transferred to the infirmary and treated so that in many cases, when treatment is given before childbirth, there is born apparently a healthy child.

Miss Broadbent discussed at some length the question of "settlements" in their relation to borough rates and the necessary inquiries relating thereto, all of which operate to deter many women, especially the unmarried, from applying for admission to these very excellent institutions.

Miss Halford's paper, *Some Economic and Administrative Aspects of the Problem of Residential Provision for Mothers and Babies*, gave evidence of careful study. In England, residential provision for mothers takes the form of lying-in homes, convalescent homes, and rest homes, both ante and post natal. The highest cost was £7 per week (in this case including initial expenditure) and the lowest £1 7s., the average being approximately £4. In an interesting comparison in the cost of municipal maternity homes and maternity homes of the volunteer agencies, she pointed out that in the former, which provide for an average of less than a dozen patients at a time, the nursing staff ranged from three to seven, and the patients remained in the institution on an average of 19½ days, the highest cost being £7 and the lowest £3 15s. 3d. In the latter the nursing staff, with one exception, was more numerous than in the municipal homes, and in three instances the staff, including two pupils, exceeded the number of patients, though the domestic staff was smaller in proportion. The stay in the home ranged from two weeks to four weeks, and the average cost per head per week ranged from £1 7s. to £6 1s. 2d.

Referring to homes for babies, Miss Halford said that by reason of the requirement for individual care of babies the large increase in the staff and consequently in cost is noticeable in homes of this character. However, it is now becoming recognized that at least one adult for every two babies is needed for their care in the homes.

The average cost of maintaining homes for ailing babies is about £2 16s. weekly per capita.

The homes for well children are far less expensive to maintain than those for ailing babies, averaging £1 14s. 7d. weekly, per capita.

Miss Halford's conclusions, after an exhaustive study of the cost of residential care for children, are to the effect that it costs more to keep a baby in a Home than it does in a private home, and that with the right kind of foster mother available, adequate supervision and regular medical inspection at infant welfare centers, the placing of children in homes is by far more preferable to institutional care for well babies.

On Wednesday the conference considered "The Supply of Milk: Its Physiological and Economic Aspects." The following papers were read and excited lively discussion:

(a) *The Milk Supply*, by Mr. Nathan Straus, founder of the infant milk depots of the United States.



(b) Milk in Its Economic Aspects, by Dr. Stenhouse Williams, director of the National Institute for Research in Dairying.

(c) The Production of Clean Milk from a Producer's Point of View, by Mr. F. Arnold Lejeune, manager of grade A (certified) dairy, Lord Raleigh's dairy farms.

(d) Supply of Milk to Expectant Mothers, Nursing Mothers, and Infants, by Dr. E. W. Hope, M. O. H. for Liverpool.

(e) Sources of Milk for Babies—Maternal Milk and Goats' Milk, by Dr. A. Dingwall Fordyce, physician, Royal Liverpool County Hospital for Children.

(f) The Physiological Aspect of the Milk Supply, by Dr. J. C. Drummond, lecturer in physiology, University College, London.

(g) Some Biological Aspects of Milk Feeding, by Dr. Harold Waller, medical officer to the Royal College of St. Katharine.

Mr. Straus's paper, The Milk Supply, was read by proxy. Mr. Straus prefaced the description of his own work by reference to the findings of the British Royal Commission which reported as early as 1907 on the presence of bovine tubercle bacilli in cow's milk. He also made copious references to findings of other experts, notably "Schroeder and Moler, of the United States Department of Agriculture; Dr. Mazijck P. Ravenel, formerly of the University of Wisconsin; and others, relating to the presence of tubercle bacilli in cow's milk.

"Why is there a milk problem?" asked Mr. Straus. The answer is that milk is the only animal food taken in its raw state, therefore the necessity of pasteurization to make it safe, since present conditions make it almost impossible for persons of average means to obtain safe raw milk. In order to show the efficacy of pasteurization in reducing the infant mortality rate, he quoted statistics showing the gradual reduction in infant mortality rate in New York City over a number of years, which he attributed largely to measures adopted to safeguard the milk supply. As bearing on the point, he also cited an experience on Randalls Island. In 1897 he presented this institution with a pasteurization plant and, to quote: "Without any other changes in the regimen or diet except the milk was pasteurized instead of being used raw, the death rate dropped from a previous average of 41.81 to 21.75 in the next seven years." Mr. Straus said the most striking of all was his experience during the epidemic of infantile paralysis which occurred in New York City during the summer of 1916. "Of 2,100 children who were entirely fed on the pasteurized milk prepared at my laboratory, not a single case of the disease developed." His pioneer work has been followed up by the establishment of milk depots in a number of cities, namely, in New York, 100; Philadelphia, 25; Chicago, 20; St. Louis, 12; and in the whole United States 297 are distributed over 36 cities.

In addition to supplying safe milk Mr. Straus, realizing the value of milk as a food, sought to encourage the drinking of milk, and to this end added the dispensing of glass milk to the stations which were located in the parks and on piers in New York City, thus bring-

ing within the reach of children who use these recreation centers milk at 1 cent a glass which was free from infection.

The authors of the paper "Milk in Its Economic Aspects" considered milk from the standpoint of the price to the consumer, prewar conditions, war conditions, and postwar conditions. The price of milk to the consumer must be sufficient to cover the cost of production, wholesale and retail selling, and profit. Before the war there was slight difference in the cost of summer and winter milk production, which slight variation enabled dairies to supply milk at a fixed rate the year round. This relationship was altered during the war, due largely to such factors as cost of labor, grazing, and of home-grown provender. These changes are least likely to return to prewar rates and involve an additional charge of 7d. per gallon for summer milk and still further increase in the cost of winter milk by reason of the necessity for larger quantities of concentrated foodstuffs.

The authors stated that the variation in price between summer and winter milk tended to diminish the consumption of winter milk, which had been produced at greater expense, and created a surplus which could not be used to advantage in butter and cheese making, since this is economical only by the use of milk which has been produced on grass.

The authors touched but lightly on the effect on health of the campaign for the nonconsumption of milk, which was started to lessen the price of milk. "It is very questionable whether the campaign was really in the best interests of the health of the Nation, since milk, even at 1s. a quart, was better value for money than many other foodstuffs which were being offered at that time."

The authors were unable to give an estimate of the permanency of the effect of war conditions. According to them there is but little doubt that the high cost of labor necessary for the production and distribution of milk will remain, and that it is not likely that the price of milk will ever return to the prewar price of approximately 4d. per quart.

Dr. Hope's paper was based on the Liverpool scheme of Supply of Milk to Expectant Mothers, Nursing Mothers, and Infants. He emphasized the difficulty of providing a suitable food substitute for infants whose mothers are unable to suckle them. This difficulty led to the establishment of centers in Liverpool where suitably prepared milk for artificially fed infants could be provided. During the year 1920 over 20,000 persons were receiving milk, of which number approximately 1,000 were expectant mothers, 9,000 were nursing mothers, 6,000 were infants under 12 months of age, and 4,000 children between the ages of 1 and 5 years.

Approximately 325,000 gallons of fresh milk and nearly 17 tons of dried milk were distributed during the year. Approximately £70,000 was expended in the distribution of milk during the

year and the amount realized from the sale of milk was slightly in excess of 35,000 pounds. One-half of the net cost of this work is recovered from the ministry of health.

Dr. Hope's paper was accompanied by a diagram showing the course of infant mortality rate during the last 20 years. The rate fell from approximately 202 in 1895 to 113 in 1920. This result he believed was due in large measure to the distribution of milk carried on in conjunction with infant and maternity welfare clinics.

Dr. Waller's discussion of the Biological Aspects of Milk Feeding was from the standpoint of the natural duration of milk feeding. He stated that artificial feeding is unknown among animals in their natural state, and that the adoption of artificial feeding by man, permitting perpetuation of stock, involves parasitic dependence on the cow. Dr. Waller questions whether this dependence is as necessary as it appears, and suggests that bottle feeding is not always the only remedy for a deficient or declining supply of human milk.

He also called attention to the case of the "unwilling" mother and stressed the need of distinguishing the difference between "unwillingness" and "inability."

In this paper the importance of breast feeding is emphasized. "Breast feeding is not foolproof. It often requires at least as much skill and patience as is required, e. g., to learn to bicycle."

In conclusion, Dr. Waller expressed some interesting views regarding the process of weaning and subsequent diet and of the different customs among the well to do and the poor.

The final day of the conference was given over to the discussion of "Inheritance and Environment as Factors in Racial Health," as follows:

(a) Inheritance and Environment as Factors in Racial Health, by Dr. Helen MacMurchy, chief of the child-welfare division of the department of health of Canada.

(b) The Influence of Weather Conditions on Mortality and Morbidity in Early Infancy, by Dr. Frederick Hoffman, third vice president and statistician to the Prudential Insurance Co. of America.

(c) The Ante-Natal Factors of Life and Death: Genetic, Toxicogenetic, Gestational and Obstetric, by Dr. C. W. Saleeby, chairman of the National Birthrate Commission.

(d) Ignorance as a Dominant Factor in Infant Mortality in Poland, by Miss McConnell.

(e) A Comparison between Working-Class Mothers and those of the Educated Classes, from the Point of View of Difficulty in Labor and Lactation, by Dr. Gordon Ley, gynæcologist, Hampstead General Hospital, assistant obstetric surgeon, City of London Maternity Hospital.

(f) Syphilis as an Ante-Natal Factor in Racial Health, by Dr. J. H. Sequeira, physician, skin department, London Hospital.

Dr. Hoffman's paper on The Influence of Weather Conditions on Mortality and Morbidity in Early Infancy was read by proxy. This

paper was based on the results of an investigation of sickness of infants in York and Homestead, Pa., with particular reference to weather conditions in relation to infant diarrhea. The investigations were made jointly by the State Department of Health of Pennsylvania and the Prudential Insurance Co., in cooperation with the United States Weather Bureau and local health agencies.

Considering the general results of unusual weather conditions of 1,092 children under observation in York, Pa., for the months July to December, 1920, with an average temperature of the months of July and August of  $72.7^{\circ}$ , Dr. Hoffman stated that the breast-fed children had a sickness rate of 2 per cent during the period of observation, while the artificially fed had a sickness rate of 13.7 per cent, and children both breast and artificially fed, 7.1 per cent.

Of 365 children subject to change in method of feeding, those who were changed from breast to partial artificial methods had a sickness rate of 6.4 per cent and the children who were changed from breast feeding to wholly artificial feeding a sickness rate of 10.4 per cent.

The data for Homestead covered only the period from August to October. The Homestead results are stated as being at variance with those obtained from the York investigation. Here again the breast-fed children showed the lowest morbidity rate, 1.6 per cent, and children changed from breast feeding to artificial feeding the highest rate, 5.1 per cent, while those artificially fed throughout the period of observation had a rate of only 2.7 per cent.

Dr. Hoffman concluded from analysis of data obtained during these investigations that an excessive sickness frequency from diarrheal diseases occurs when the maximum temperatures coincide with high minimum temperatures. "It is a safe inference that when the maximum temperatures are likely to exceed  $70^{\circ}$ , while the minimum temperatures exceed  $60^{\circ}$ , the normal sickness rate from diarrheal diseases among infants under one year of age will be easily 10 times the prevailing rate during cool days, when the maximum temperature is from  $30^{\circ}$  to  $40^{\circ}$  and the minimum from  $20^{\circ}$  to  $30^{\circ}$ ." He observed a consistent rise in the rate of sickness incidence from 1.6 per 1,000 infants during lowest maximum temperatures to 10.6 during the highest and from 2.4 per 1,000 during the lowest minimum temperatures to 11 during the highest.

The results for Homestead are less conclusive, but in the main justify the same conclusions as were advanced in the case of York.

Dr. Hoffman suggested that it would be feasible to develop applied meteorology to the point of forecasting weather conditions favorable or unfavorable to an outbreak of infantile diarrhea. "By this means every mother could be promptly informed through the newspapers of impending weather changes likely to prove disastrous to child life, amplified by proper suggestions from the board of health or otherwise as regards the danger of artificial feeding, and, last but

not least, changes in feeding methods during abnormal temperature conditions."

Probably one of the most interesting and practical papers of this session was that by Dr. J. H. Sequeira on the Danger and Treatment of Ante-Natal and Syphilitic Environment. In any consideration of the influence of syphilis on the embryo, according to Dr. Sequeira, it must be remembered, first, that the mother may be suffering from syphilis in an active or in a latent stage when impregnation takes place, and, second, that the mother may be infected with syphilis any time during pregnancy.

For practical purposes the possibility of an embryo being syphilized by the father alone is ignored, since experience points to the mother being the chief source of congenital syphilis.

Dr. Sequeira gave some interesting statistics of the influence of syphilis as the cause of premature birth, stillbirth, and infant mortality.

Out of 1,722 pregnancies in syphilitic families no fewer than 744, or 23 per cent terminated either in premature death of the infant or in death shortly after birth.

Furthermore, of a series of children coming under the observation of Mr. Bishop Harman, 390 children that survived were diseased, and of 263 survivors reported by Mr. McLeod Yearsley and Dr. Kerr Lowe 85 or 39 per cent, were deaf and blind.

Based on other sources of information the author reported that the incidence of syphilis in large cities varies roughly from 2 per cent to 6 per cent, and that in the Prague Foundling Hospital, Epstein obtained a positive Wassermann in 33 per cent of 296 newborn infants.

Based on his own experience the author claimed that the treatment of the mother by salvarsan and allied drugs while the foetus is still in utero is remarkably efficient, and that the mortality in utero and in early life and the grave later effects of congenital syphilis can be rendered insignificant if not entirely removed. The machinery for effecting this most desirable end is the maternity clinic, infant welfare center, school inspection, the laboratory where necessary blood examinations can be made, and the venereal clinic where the treatment can be carried out.

The following are some points emphasized by him:

1. It is important above all things to impress upon the public that no person who has contracted syphilis should marry while likely to infect the other partner to the marriage.

2. If a pregnant woman comes to a venereal disease clinic suffering from syphilis, energetic treatment must begin at once no matter what the stage of pregnancy.

3. Any woman who has had repeated miscarriages should have her blood examined by the Wassermann test. (Notification of miscarriages and stillbirths would be of service, but it is doubtful if it would be practicable.)



4. Should a married man or woman attend a venereal clinic the other partner should be examined and treated if found infected. The children of these parents should also be seen and examined.

5. Finally, if a child is brought to a clinic suffering from congenital syphilis the parents should be seen and treated if necessary.

In addition to the regular sessions of the conference, a course of lectures was arranged for each evening during the period of the conference.

On Tuesday evening Mrs. Kitson Clark, president Leed's Babies' Welcomes Association, lectured on the Ideal Maternal and Child Welfare Center, and Dr. Eric Pritchard, chairman of the National Baby Week Council, and of the Association of Infant Welfare and Maternity Centers, lectured on Common Infections in Mother and Child.

On Wednesday evening the lecturers were Dr. Ethel Luce, assistant medical officer, L. C. C., and Dr. John Adams, medical officer in charge of Thavies Inn Venereal Disease Center for Pregnant Women, on the Accessory Factors in Infant Feeding, and the Syphilitic Mother and her Infant, respectively.

The final course of lectures on Thursday evening were given by Dr. Flora Shepherd, medical officer to the Hornsey Municipal Infant Welfare Center, and Dr. Geoffrey Marshall, O. B. E., assistant physician, Guy's Hospital, who lectured on the Psychology of the Mother and Her Child, and the Tuberculous Mother and Her Infant, respectively.

A special medical session, organized by the Society of Medical Officers of Maternity and Infant Welfare Centers, was held on Wednesday afternoon. The subject for discussion, "The Uses and Abuses of Dried Milk," was introduced by Dr. Harold Scurfield. The discussions emphasized the relative scarcity of milk in England (less than one-half pint per capita) and developed the fact that an enormous quantity of dried milk was being used with satisfactory results. One of the practical points brought out regarding the use of dried milk in infant and child welfare centers related to the printed directions for preparing dried-milk powder. The manufacturer directs that the milk powder be measured by the teaspoonful. Owing to the very great variation in the size of teaspoons, infants are likely to be supplied with a food not well adapted to their digestive capacities. The discussion was participated in by the representative of the United States Public Health Service, who outlined the studies of dried-milk powder as a food for infants made by the service during the past year in the city of Boston, in cooperation with the Boston Baby Hygiene Association. These studies very clearly demonstrated the value of properly manufactured dried milk as a substitute for fresh cow's milk in cases where breast feeding is not possible.

A meeting of the General Council of the Association of Infant Welfare and Maternity Centers held on Thursday was devoted to

the discussion of the question "What are the Most Vital and Essential Forms of Child Welfare Work?"

The writer brings away from this conference the general impression that the English-speaking people are deeply impressed with the necessity and importance of conserving maternal and infant life. The papers read at this conference showed a keen insight into the problems of maternal and child hygiene. The writer was also impressed by the fact that a number of the papers gave evidence that the British Government is much more liberal with appropriations for child health work than is the case in our own country, and that the coordination of the activities of volunteer associations with those of the official agencies is much closer than is generally the case with us. Finally, it must be noted the conference made clear that, fundamentally, the solution of the problems of child hygiene in other English-speaking countries is the same as in America. The essential principles of child and maternal health conservation are equally well understood by all, but the practical application of this knowledge can never be wholly the same in England as in the United States, due to the necessity of different angles of approach. However, the calling into conference of representatives from far-distant countries for the purpose of exchanging views can not help but be fruitful of good results. The earnest men and women responsible for the organization and conduct of the conference deserve the heartfelt thanks of those who are interested in the welfare of the future men and women of their respective countries.

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### **COOPERATIVE RURAL HEALTH WORK OF THE PUBLIC HEALTH SERVICE IN THE FISCAL YEAR 1921.**

By L. L. LUMSDEN, Surgeon, United States Public Health Service.

The results of the cooperative rural health work of the Public Health Service in the fiscal year ending June 30, 1921, gave further support to the conclusion<sup>1</sup> presented in the report on this activity for the fiscal year 1920.

The estimate of appropriation approved by the Bureau of the Public Health Service and the Treasury Department and submitted to Congress "for special studies of and demonstration work in rural sanitation" in the fiscal year 1921 was \$500,000. Congress granted \$50,000. In view of (1) the definitely determined<sup>2</sup> need of sanitary improvements in our rural districts, (2) the lack of local health service approaching adequacy in our rural counties and towns generally, (3) the vital importance from local, State, and national stand-points of having promoted the interests of our food-producing rural

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<sup>1</sup> Page 15 of Reprint No. 615 from Public Health Reports, Oct. 1, 1920.

<sup>2</sup> Public Health Bulletin No. 94, pp. 39-44.

sections, (4) the interrelation of rural to urban health, and (5) the demonstrated effectiveness of the plan of rural sanitation work of the Public Health Service to stimulate the development and maintenance of well-balanced, economical local health service, it seemed unfortunate that the appropriation made available was less than 10 per cent of the amount necessary to enable the Federal Government to accept opportunities presenting at the beginning of the fiscal year through offers from State and local authorities to enter into cooperation in due and reasonable proportion to develop demonstration projects in rural health work. Had the amount estimated, viz, \$500,000, been made available, the demonstration work could have been carried out on a sufficient scale to make a definite impression upon the general situation, and the eventual results in the promotion of rural health work, with the saving of lives and the prevention of costly sickness among the people of the United States, would have been more than tenfold those which were obtainable from the small investment made possible by the appropriation granted.

On July 1, 1920, \$997.42 unexpended under previous contracts remained available. This amount, with the \$50,000 appropriated, made \$50,997.42 available for the cooperative rural health work of the Public Health Service in the fiscal year 1921. Of this sum, \$31,460.82 was expended under allotments for cooperative projects in counties, and \$5,874.45 was expended for administration, supervision of projects, and studies of the problem of rural sanitation.<sup>3</sup>

During the fiscal year, cooperative projects were carried out in 38 counties in 15 States. The total expenditures for the support of the local projects was \$292,063.59. Of this sum, \$217,768.39 was provided from municipal, county, and State governmental sources, \$42,834.38 from civic sources, such as local health associations, Red Cross chapters, and the International Health Board, and \$31,460.82 from the rural sanitation funds of the Public Health Service. Thus the investment of Federal funds was covered with odds of over 8 to 1 for the support of the work. The proportion of the expenses met with funds from local sources is significant. It gives some idea of the stimulating effect of the Federal cooperation and suggests what might be accomplished in this vitally important national field if Congress would grant sufficient appropriations to enable the Federal Government to go into the cooperative rural health business on a reasonably adequate scale.

The amounts of money expended from the different sources for the support of the projects and the scope and the results of the work are presented in the accompanying tabular statement.

<sup>3</sup>The unexpended balance of the total sum available was included in allotments made during the fiscal year for the support of some of the local cooperative projects which, because of various local circumstances, could not be completed by the end of the fiscal year.

*Compilation of data, by counties, on cooperative demonstration work in rural sanitation in the fiscal year 1921.*

Counties (or districts)	Arlington, Va.	Cave Coal Health District, Mass.	Cascade, Mont.	Chaves, N. Mex.	Cherokee, Kans.	Clarke, Ga.	Cumber- land, N. C.	Dubuque, Iowa.	Edge- combe, N. C.	Fifth Sanitary District of Vermont.
Period of work in fiscal year 1921	July 1, 1921, to June 30, 1921.	May 1 to June 30, 1921.	Aug. 16, 1921, to June 30, 1921.	June 1 to June 30, 1921.	July 1, 1921, to June 30, 1921.	Dec. 1, 1921, to June 30, 1921.	July 1, 1921, to June 30, 1921.	May 1 to June 30, 1921.	July 1, 1921, to June 30, 1921.	Aug. 1, 1921, to June 30, 1921.
Expenditures:										
(a) Rural sanitation fund (P. H. S.)	\$300.00	\$312.50	\$3,500.39	\$150.00	\$900.81	\$1,208.29	\$993.29	\$50.00	\$902.46	\$2,310.00
(b) State	1,793.24						999.98		1,882.72	3,259.64
(c) County	10,483.00	669.67	8,154.44	425.46	6,142.16	3,375.45	6,626.13	1,294.84	1,859.46	
(d) Municipalities			8,154.44			501.99		1,565.94		
(e) Other agencies	928.00		2,470.00	325.00	1,250.00	748.56	1,000.01		800.00	
Total	13,504.24	982.17	22,279.27	805.46	8,251.97	5,884.23	9,589.41	2,853.68	5,195.64	5,579.64
Number of lectures	26	2	39	5	159	112	94	9	66	45
Attendance at lectures	1,285	75	1,422	290	9,918	5,230	6,640	799	3,727	1,731
Pieces of literature distributed	6,717		28,944	63	9,262	792	10,410		2,975	4,882
Sanitary inspections:										
(1) Private homes	2,420	3	93	568	1,316	4,397	4,012	616	3,376	25
(2) Schools	109	1	1		158	118	73	51	28	182
(3) Churches	94	6	6			4				
(4) Stores, markets, etc.	414		565		539		2,161	510	1,060	257
Total	3,037	9	665	898	2,004	4,475	6,246	1,177	4,464	461
Special inspections:										
Food product places										
Physical examination of school children:	212	302	110	75	633	1	1,550	262	802	168
(1) Number examined		80	1,494		6,901	1,380	1,272	1,903	664	5,199
(2) Number found defective		78	1,682		4,622	1,133	763	836	258	4,333
Number of treatments induced for correction of physical defects in school children				10	56			63		242
Public health nursing:										
(1) Number of visits to cases of communicable diseases	147		735	201	37		1,848		573	24
(2) Number of talks given to groups of persons	98		43	2	45		75	81	142	337
(3) Number of visits to give prenatal care			24	2	70		572	33	167	12
(4) Number of visits to explain and demonstrate infant hygiene			697	100	174		823	285	1,067	60

(4) Number of visits to explain and demonstrate infant hygiene.....	.....	607	100	174	823	265	1,067	62
<b>Laboratory examinations:</b>								
Positive.....	312	2	151	142	43	200	132	266
Negative.....	1,789	100	773	91	42	586	303	2,804
Total.....	2,101	102	924	233	85	786	435	3,130
<b>Immunization:</b>								
(1) Number of complete antityphoid inoculations.....	3	.....	32	2,189	266	737	.....	.....
(2) Number of complete antismallpox inoculations.....	73	.....	461	.....	1,618	2,401	.....	.....
(3) Number of complete antipneumonia inoculations.....	8	.....	.....	.....	.....	.....	.....	.....
Antimalaria work.....	(1)	(1)	(1)	(1)	(1)	(2)	(1)	.....
Number of persons treated for removal of hookworm infection.....	58	.....	.....	.....	.....	23	.....	12
Veneral disease prevention:	.....	.....	.....	.....	.....	.....	.....	.....
(1) Number of prophylactic treatments.....	.....	.....	215	.....	.....	1,632	77	75
(2) Number of curative treatments.....	.....	.....	.....	.....	.....	.....	.....	.....
Number of visits by health officer or his assistant:	.....	.....	.....	.....	.....	.....	.....	.....
(1) To diagnose suspected cases infectious disease.....	49	.....	1,758	45	22	210	52	36
(2) To impose quarantine measures.....	372	.....	2,348	13	36	504	63	18
Number of cases quarantined.....	454	67	2,261	307	44	602	60	635
<b>Sanitary privies installed:</b>								
L. R. S.....	.....	.....	.....	7	28	90	.....	.....
Concrete vaults.....	.....	.....	.....	165	.....	72	1	11
Bucket and box.....	719	.....	.....	59	400	17	.....	.....
Pits.....	.....	.....	.....	643	53	350	.....	11
Total.....	719	.....	.....	874	481	529	1	22
<b>Septic tanks installed.....</b>								
Number of privies repaired so as again to be of sanitary construction.....	89	.....	155	366	.....	18	.....	.....
Number of new sewer connections.....	.....	.....	.....	189	20	35	44	18
Number of new water connections.....	.....	.....	92	189	42	15	67	.....
Number of wells improved.....	.....	.....	83	103	.....	12	54	.....
Number of springs improved.....	51	.....	.....	.....	6	6	4	.....
Number of public milk supplies radically improved.....	.....	.....	.....	.....	.....	2	.....	22
Number of life extension examinations.....	17	.....	64	35	.....	24	48	.....
.....	.....	.....	.....	.....	.....	34	.....	32

\* Little.

\* Considerable.

\* None.



*Compilation of data, by counties, on cooperative demonstration work in rural sanitation in the fiscal year 1921—Continued.*

Counties (or districts).....	Fauculer, Va.	Glynn, Ga.	Greene, Mo.	Hamilton, Tenn.	Harrison, Miss.	Henry, Va.	Jasper, Mo.	Lauderdale, Ala.	Madison, Ala.	Mason, Ky.
Period of work in fiscal year 1921.....	Oct. 1, 1920, to June 30, 1921.	Aug. 1, 1920, to June 30, 1921.	July 1, 1920, to June 30, 1921.	July 1 to Sept. 15, 1920.	July 1, 1920, to June 30, 1921.	Aug. 1, 1920, to June 15, 1921.	July 1, 1920, to June 30, 1921.	July 1, 1920, to June 30, 1921.	July 1, 1920, to June 30, 1921.	July 1, 1920, to June 30, 1921.
<b>Expenditures:</b>										
(a) Rural sanitation fund (P. H. S.).....	\$225.00	\$275.00	\$939.81	\$762.50	\$1,200.00	\$292.50	\$909.81	\$1,173.33	\$2,274.17	\$1,788.34
(b) State.....	2,237.96				4,034.85	4,034.85		575.00		1,361.28
(c) County.....	3,461.12	10,419.18	600.00	5,271.67	8,907.18	4,034.85	2,476.27	3,041.00	6,704.55	2,002.75
(d) Municipalities.....		6,348.89						2,874.96		
(e) Other agencies.....	1,594.94		10,461.65		1,078.81	825.00	8,302.60	3,527.76	2,035.02	1,164.03
<b>Total.....</b>	7,489.02	17,043.07	11,971.46	6,034.17	11,185.99	9,157.20	11,688.68	8,317.09	13,893.70	6,336.40
<b>Number of lectures.....</b>	33	31	401		190	23	40		24	103
<b>Attendance at lectures.....</b>	2,995	1,470	12,974		14,649	1,028	4,995	3,170	3,910	3,316
<b>Pieces of literature distributed.....</b>	18,095	1,093	41,229		8,689	6,001	4,655	3,175	1,780	4,464
<b>Sanitary inspections:</b>										
(1) Private homes.....	1,100	7,690	48	3,300	5,496	1,069	1,601	4,578	10,243	417
(2) Schools.....	81	13	191	8	82	65	65	104	52	86
(3) Churches.....	4	5	6	13	13			25		
(4) Stores, markets, etc.....	116	1,936	190	130	1,965		347	7,249	80	14
<b>Total.....</b>	1,391	9,639	434	3,444	7,556	1,134	2,013	11,957	10,375	517
<b>Special inspections:</b>										
Food product places.....	67	568	28	10	78		169	283	454	3
Physical examination of school children:										
(1) Number examined.....	2,723	1,913	3,572		2,831	2,283	5,395	3,664	4,305	3,363
(2) Number found defective.....	1,803	972	2,881		1,896	1,288	4,656	2,711	2,306	1,212
Number of treatments induced for correction of physical defects in school children.....	656	70	1,438				424	11	30	167
<b>Public-health nursing:</b>										
(1) Number of visits to cases of communicable diseases.....	24	269	262		47	967	783	50	171	701
(2) Number of talks given to groups of persons.....	105	14	81		132	204	304	36	39	20
(3) Number of visits to give prenatal care.....	9	14	197		11		221	18	7	83
(4) Number of visits to explain and demonstrate infant hygiene.....	12	2	1,456		18	167	561	35	433	125

<b>Laboratory examinations:</b>										
Positive.....	39	144	218	795	56	179	607	106		
Negative.....	35	211	181	1,917	245	594	2,064	310		
<b>Total.....</b>	<b>74</b>	<b>355</b>	<b>399</b>	<b>2,712</b>	<b>301</b>	<b>773</b>	<b>2,671</b>	<b>416</b>		
<b>Immunization:</b>										
(1) Number of complete antityphoid inoculations.....	56	321	28	471	14	789	483	.....		
(2) Number of complete antismalpox inoculations.....	.....	880	452	2,965	445	849	1,274	455		
(3) Number of complete antipneumonia inoculations.....	2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4	177	( <sup>1</sup> )	( <sup>1</sup> )		
Antimalaria work.....	4	40	.....	672	38	21	1	.....		
Number of persons treated for removal of hookworm infection.....	.....	.....	.....	.....	.....	.....	.....	.....		
Veneral disease prevention:										
(1) Number of prophylactic treatments.....	.....	677	5,901	230	.....	3,919	3,608	211		
(2) Number of curative treatments.....	.....	.....	.....	.....	.....	.....	.....	.....		
Number of visits by health officer or his assistant:										
(1) To diagnose suspected cases infectious disease.....	45	93	109	80	217	157	412	152		
(2) To impose quarantine measures.....	45	51	408	29	.....	66	210	125		
Number of cases quarantined.....	.....	45	570	817	62	107	191	212		
<b>Sanitary privies installed:</b>										
L. R. S.....	6	43	18	.....	42	85	30	16		
Concrete vaults.....	528	.....	.....	.....	.....	.....	.....	.....		
Bucket and box.....	999	.....	.....	.....	6	63	80	1		
Pits.....	.....	.....	.....	55	659	144	112	2		
<b>Total.....</b>	<b>1,843</b>	<b>43</b>	<b>18</b>	<b>55</b>	<b>707</b>	<b>292</b>	<b>234</b>	<b>19</b>		
<b>Septic tanks installed.....</b>										
Number of privies repaired so as again to be of sanitary construction.....	.....	.....	.....	.....	.....	.....	.....	.....		
Number of new sewer connections.....	1,098	140	14	1,981	18	246	288	22		
Number of new water connections.....	30	.....	.....	2	29	87	36	4		
Number of wells improved.....	11	.....	.....	10	32	43	21	4		
Number of springs improved.....	2	.....	3	.....	.....	34	.....	.....		
Number of public milk supplies radically improved.....	.....	.....	.....	.....	4	8	.....	.....		
Number of life extension examinations.....	2	41	.....	13	.....	.....	.....	.....		
.....	.....	.....	.....	12	.....	.....	311	.....		

Little.

Considerable.

None.

*Compilation of data, by counties, on cooperative demonstration work in rural sanitation in the fiscal year 1921—Continued.*

Countries (or districts).....	Muscogee, Ga.	Ottawa, Okla.	San Miguel, N. Mex.	Santa Fe, N. Mex.	Talladega, Ala.	Union, N. Mex.	Walker, Ala.	Walker, Ga.	10 Virginia counties.	Total.
Period of work in fiscal year 1921.....	July 1, 1920, to June 30, 1921.	July 1, 1920, to June 30, 1921.	Apr. 1 to June 30, 1921.	June 1 to June 30, 1921.	July 1, 1920, to June 30, 1921.	Apr. 1 to June 30, 1921.	July 1, 1920, to June 30, 1921.	July 1, 1920, to June 30, 1921.	July 1, 1920, to June 30, 1921.	
Expenditures:										
(a) Rural sanitation fund (P. H. S.).....	\$300.00	\$900.81	\$225.00	\$100.00	\$1,990.96	\$248.22	\$818.33	\$1,457.50	\$4,904.80	\$31,400.82
(b) State.....					953.80				11,131.92	27,900.39
(c) County.....	23,282.50	4,006.39	2,006.00	505.54	6,457.00	2,556.60	4,961.62	3,907.53	13,275.65	147,139.37
(d) Municipalities.....	23,282.51	4,339.08		226.40	1,057.58		830.00			42,698.63
(e) Other agencies.....										42,834.38
Total.....	46,865.01	9,335.28	2,321.00	921.94	10,468.34	2,804.82	6,606.95	5,365.33	29,312.37	292,063.59
Number of lectures.....	10	142	64	18	74	31	94	62	413	2,356
Attendance at lectures.....	220	7,800	1,085	3,048	4,879	967	4,560	5,148	28,703	136,633
Pieces of literature distributed.....	5,117	3,775	550	900	3,062	225	6,719	5,536	33,358	212,599
Sanitary inspections:										
(1) Private homes.....	56,840	2,293	283		609	191	1,068	3,065	10,868	127,985
(2) Schools.....		110	37		11	4	67	48	419	2,109
(3) Churches.....					5		5	17		184
(4) Stores, markets, etc.....	2,790	741	96		207	14	215	380		22,014
Total.....	59,630	3,144	416		892	209	1,375	3,530	11,287	152,332
Special inspections:										
Food product places.....	651	645	75		179	3		87	237	7,702
Physical examination of school children:										
(1) Number examined.....	2,254	1,842	21		2,086	704	4,831	2,711		63,311
(2) Number found defective.....	1,203	1,577	18		1,498	462	2,639	1,260		41,507
Number of treatments induced for correction of physical defects in school children.....		275		43	24			112		6,241
Public-health nursing:										
(1) Number of visits to cases of communicable diseases.....	3,010	620	1	442	471	125	362			12,000
(2) Number of talks given to groups of persons.....	108	9	9	12	26	86	139			2,339
(3) Number of visits to give prenatal care.....	1,573	73	6	37		10	20			3,161
(4) Number of visits to explain and demonstrate infant hygiene.....	2,220	299	89	343	5	20	34			9,035

<b>Laboratory examinations:</b>									
Positive.....	300	25	24	247	53	185	43	.....	4,510
Negative.....	786	48	9	596	670	796	72	.....	13,516
<b>Total.....</b>	<b>1,176</b>	<b>73</b>	<b>33</b>	<b>1,083</b>	<b>723</b>	<b>975</b>	<b>115</b>	.....	<b>20,026</b>
<b>Immunization:</b>									
(1) Number of complete antityphoid inoculations.....	817	1,815	.....	1	1,791	2,800	293	.....	15,937
(2) Number of complete antismalpoex inoculations.....	1,122	205	.....	.....	526	2,167	583	.....	20,025
(3) Number of complete antipneumonia inoculations.....	(*)	71	(*)	(*)	(*)	(*)	1	(*)	268
Animalaria work.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Number of persons treated for removal of hookworm infection.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Veneral disease prevention:	.....	.....	.....	.....	.....	.....	.....	.....	.....
(1) Number of prophylactic treatments.....	.....	27	.....	.....	.....	.....	.....	.....	.....
(2) Number of curative treatments.....	3,810	887	.....	.....	56	.....	.....	.....	.....
Number of rats by health officer or his assistant.....	.....	.....	.....	.....	3,445	.....	.....	.....	.....
(1) To diagnose suspected cases infectious disease.....	504	84	146	123	407	118	144	.....	5,096
(2) To impose quarantine measures.....	925	97	57	412	178	164	35	.....	6,872
Number of cases quarantined.....	758	128	93	28	162	248	75	.....	8,334
<b>Sanitary privies installed:</b>									
L. R. S.....	.....	.....	.....	2	130	19	71	.....	840
Concrete vaults.....	.....	83	.....	.....	.....	.....	2	.....	440
Bucket and box.....	51	617	4	61	480	861	50	.....	4,991
Pits.....	.....	.....	.....	.....	15	149	4	.....	5,529
<b>Total.....</b>	<b>51</b>	<b>700</b>	<b>4</b>	<b>63</b>	<b>615</b>	<b>1,029</b>	<b>127</b>	.....	<b>11,790</b>
<b>Septic tanks installed.....</b>									
Number of privies repaired so as again to be of sanitary construction.....	.....	122	.....	.....	.....	.....	.....	.....	733
Number of new sewer connections.....	76	321	115	284	20	656	81	.....	5,726
Number of new water connections.....	106	500	13	2	488	67	260	.....	2,244
Number of wells improved.....	35	15	3	.....	470	116	289	.....	2,047
Number of springs improved.....	23	.....	.....	.....	19	45	.....	.....	571
Number of public milk supplies radically improved.....	11	70	20	.....	20	21	2	.....	150
Number of life extension examinations.....	.....	.....	.....	6	4	.....	.....	.....	322
.....	.....	.....	.....	.....	92	.....	.....	.....	554

\* None.

\* Considerable.

\* Little.

### Plan of Work.

The plan of work in the fiscal year 1921 was generally the same as that<sup>4</sup> carried out in the fiscal year 1920. This plan has been evolved in the course of field experience. It has stood the test of time under a wide range of local conditions. Its effectiveness, economy, and logic appear now to be definitely demonstrated.

From follow-up observations in the rural counties of which the Public Health Service, in cooperation with State and local health authorities, made complete sanitary surveys in the period 1914-1917, it was found, as a rule, in those in which local whole-time health service was maintained, after the survey, sanitation progressed; whereas in those in which no such service was provided, the sanitary improvements resulting from the educational effects of the survey retrogressed. Such observations indicated the advantage of distributing the rural sanitation demonstration work of the Public Health Service in communities in which it would help toward the establishment of local whole-time health service adequate to continue the sanitary work and so make the demonstrations lasting. This principle of procedure has been applied in most of the projects in which the cooperative work has been conducted during the last three fiscal years.

A whole-time health service is established in the geographical unit—a county or a group of townships or towns—decided upon by the agencies (including the State board of health and the local governmental authorities) to participate in the cooperative project. For the support of such service, the money from the different sources, including that from the rural sanitation funds of the Public Health Service, is pooled so as to make a budget for the year. Under this arrangement the rural sanitation work of the Public Health Service is carried out by a local health force and so made a part of a general program of rural health work indicated in the locality. Thus it is accomplished more economically and with more lasting effects from a demonstration standpoint than it could be if undertaken by a specialized force working a comparatively short time in the locality. The members of the local health forces, consisting of whole-time county or district health officers, whole-time sanitary inspectors, and whole-time health nurses, are appointed by the proper local authorities; but they must be acceptable to each of the cooperating agencies. The only ground upon which the interests of all the cooperating agencies can meet, is that of fitness of the personnel to render efficient services; and, with such expressed understanding, the local authorities, at times, may be relieved of local political embarrassment in making the appointments.

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<sup>4</sup> Reprint No. 615 from Public Health Reports, Oct. 1, 1920.



The different branches of health work indicated in the locality are taken up in what appears to be the logical and most advantageous sequence. The local health officer, at the head of the demonstration unit, in determining sequence and methods of work, has, from time to time, the advantage of advice and counsel from broadly experienced representatives of the State board of health and the Public Health Service. Every salient branch of health work—including safeguarding of water and food supplies, sanitary excreta disposal, fly control, antimalarial measures, acute communicable-disease control, infant and maternity hygiene, school inspection, antituberculosis and antivenereal disease measures, industrial hygiene, etc.—is carried out in the demonstration projects. The economy of having carried out all such related activities under one local administrative direction rather than under multiple direction, as would be the case with numerous separate specialized health forces operating independently along the different lines of health work in the same locality, is readily apparent. Under this plan of unified local health service, overhead expenses and clerical work may be reduced to a minimum, so as to constitute but a small fraction of what they would be under a plan of uncoordinated multiple separate health activities in a community.

The plan of cooperative rural health work by the Public Health Service has been found to be adjustable to the differing governmental and other local conditions in the different States. In the Southern and Western States generally the county government is the unit of rural government with which, as a rule, the Public Health Service and the State board of health negotiate the cooperative arrangements. In the New England States, with the town as the unit of rural government, and with many of such towns having each a population (of less than 2,000) too small to support economically a whole-time town health service, the problem of adjustment appeared more difficult. It was, therefore, with particular interest that, upon the request of the State commissioner of health, negotiations were undertaken in the fiscal year 1921 to develop a cooperative rural health project in Massachusetts.

#### **The Cape Cod Project.**

In the autumn of 1920 representatives of the Public Health Service and of the State department of health, at a joint meeting of members of the boards of selectmen and the local boards of health of the 14 towns in Cape Cod, Mass., presented for consideration a proposition for the establishment of a system of whole-time health service in that part of the State. The proposition presented was for the towns to go into partnership for whole-time health service by pooling their appropriations for health work and having the same person serve

as health officer for each of the towns entering into the combination. The members of the local boards regarded the proposition favorably and agreed to present it at the next town meetings in their respective towns. At the town meetings held in the spring of 1921, 10 of the towns were authorized by a unanimous vote of the citizens assembled to enter into the combination. Thus these 10 towns were constituted a special sanitary district. A health officer was engaged for whole-time service in the district and was appointed as health officer of each of the towns in the group. As assistants on the district health force, a sanitary inspector and an officer clerk were engaged. A system to coordinate advantageously the work of several health nurses, engaged by civic organizations or by separate towns in the group, with the activities of the district health force was inaugurated. The budget for the support of the district health work for a period of 12 months was \$7,600, of which \$5,100 was appropriated by the 10 towns and \$2,500 was allotted from the rural sanitation funds of the Public Health Service. The appropriations by the towns to obtain this whole-time health service exceeded but little the amounts expended by them in each of the several previous years for part-time, unsystematic, and comparatively ineffectual health work. The active work of the whole-time district health department on Cape Cod was begun in May, 1921, and at the end of the fiscal year was giving promise of highly gratifying success.

#### **Special Demonstration Work in 10 Virginia Counties.**

The special line of demonstration work in rural sanitation which was carried out in 11 counties in Virginia in the fiscal year 1920 was carried out in 10 counties<sup>5</sup> in that State in the fiscal year 1921. This special line of demonstration work has proved highly successful and has a wide range of applicability among counties in which effective health work, if begun at all, must be begun on a low-cost basis. The following excerpt from a report submitted to the Rural Sanitation Office by Surg. W. F. Draper presents the plan of progressive rural health work which is being carried forward in Virginia:

Among the 100 counties in Virginia are many which have never made provision for organized public health work of any kind and in which sentiment for such work is confined to a very few people. To secure from these counties appropriations of several thousands of dollars for the support of adequate, well-balanced health departments is an impossibility at the present time. The only way in which this can be accomplished is by introducing first the simplest and least expensive form of public health work which will be effective, and gradually adding to it as public interest and public sentiment develop.

The demonstrations of rural health work in Virginia are planned so as to enable any county to undertake at the start the one line of work which, for that particular county, will yield the greatest results in lives saved and sickness prevented for the money

<sup>5</sup> Bath, Charlotte, Chesterfield, Greensville, Lunenburg, Northumberland, Orange, Richmond, Roanoke, and Wythe.

which is available. As the work progresses, and as its value becomes apparent to the citizens of the county, appropriations may be increased so as to include the line of work which will yield the next greatest returns, and so in logical sequence, until the public health structure is completed. By this method of development the people are enabled to keep pace with the work, and are ready to approve and accept each additional step because of the merit and worth of those which have gone before. While such a process of development may extend over a period of years, it is permanent when completed.

Almost every stage in the development of county health work was in progress in Virginia at the end of the fiscal year 1921, as is shown by the following:

**First stage—five counties.**

County sanitary officer.

**Appropriations—**

United States Public Health Service.....	\$300
State board of health.....	700
County.....	1,500
<b>Total.....</b>	<b>2,500</b>

In this stage may also be included 39 counties in which a public health nurse is employed alone by the county, either with or without State or Red Cross financial assistance.

**Second stage—five counties.**

County sanitary officer.

Public health nurse.

**Appropriations—**

United States Public Health Service.....	\$300
State board of health.....	1,200
County (including extra governmental agencies).....	3,500
<b>Total.....</b>	<b>5,000</b>

**Third stage—five counties.<sup>a</sup>**

County health officer.

Public health nurse.

Sanitary inspector.

Clerical assistant.

**Appropriations—**

United States Public Health Service.....	300
State board of health.....	2,500
International Health Board.....	2,500
County (including extra governmental agencies).....	5,000
<b>Total.....</b>	<b>9,300</b>

**Fourth stage—four counties.**

County health officer.

Public health nurse.

Sanitary inspector.

Clerical assistant.

**Appropriations—**

\$8,000 to \$15,000, all derived from county sources.

<sup>a</sup> The Public Health Service is participating in three of these counties.

In the cooperative county health work in which the Public Health Service has participated during the fiscal year 1921, the appropriations have been derived as follows:

United States Public Health Service.....	\$5, 696. 91
State board of health.....	13, 727. 44
Counties (including extra governmental agencies).....	48, 211. 91
<b>Total.....</b>	<b>67, 538. 26</b>

The development of the first stage of health work in counties in which no public health activities were being conducted has constituted the greater part of the work of the Public Health Service in Virginia. At the beginning of the demonstrations in 1919, cooperative work of this character was established in 10 counties, the full number that could be undertaken with the Federal and State appropriations available for the purpose. During the first year the work was conducted on a \$2,000 budget for each county, \$1,000 being derived from the county and the remaining \$1,000 being contributed by the State and the Public Health Service.

At the end of the first year, six of the counties provided for continuation a second year and appropriated \$1,500 each instead of \$1,000 in order that the salaries of the sanitary officers might be more in proportion to the services they had rendered. The State and Public Health Service allotments remained the same, making the county budgets \$2,500 each.

Two of the 10 original counties appropriated \$5,000 each in order that they might enter the third stage of work. The remaining two counties made no provision for continuation.

In 1920 four new counties were secured to fill the places of the counties which had advanced to a higher stage or which had discontinued, the demonstrations being conducted throughout the year in 10 counties as before.

During the second year, 5 of the 10 counties advanced to the second stage by employing a public health nurse in addition to the sanitary officer.

Up to July, 1921, three counties have completed their second year of work, and two of them have provided for continuation a third year upon the same basis as before. It is assured that practically all of the remaining counties will provide for continuation. A new county has been secured to fill the place of the one which discontinued the work, and other counties have signified their intentions of providing for the first stage of work in the event that a vacancy occurs.

One of the original counties which advanced to the third stage after the first year, has returned to the second stage for its third year.

The educational value resulting from the first stage of work and its success in demonstrating the benefits to be derived, are best shown by the action of the counties in providing for continuation from year to year or in advancing to higher stages.

#### General Progress in Rural Health Work.

It is gratifying to be able to report that, notwithstanding the general economic depression, substantial progress was made in the development of whole-time rural health service in the United States during the fiscal year. Ohio went to the head of the list of States for number of counties provided with whole-time health departments. Progress deserving especial mention continued in Virginia, North Carolina, Georgia, and Alabama, and was made in Missouri. Largely as a result of the demonstrations effected by the cooperative rural health work in Greene and Jasper Counties, Mo., the State Legislature of Missouri made an appropriation of \$20,000 for cooperative rural

health work in the biennial period beginning July 1, 1921. Dubuque County, in Iowa, established a precedent for that State by creating a whole-time county health department.

In a number of the counties in which the Public Health Service was participating in rural health work during the year, the industrial depression was so acute as to necessitate radical reductions in county expenditures; but notwithstanding this fact, the appropriations from the county treasuries for the health work were continued—and in most instances on an increased scale. Some of these instances furnished striking evidence of the appreciation by the local citizens of the relative and the absolute value of the cooperative health work.

Though the progress in the development of whole-time local health service in our rural districts generally is slow, it now is being made on a basis of definitely established facts whose convincing logic eventually may be expected to cause an increase in its rate somewhat commensurate with the importance of the work. That something more than is now being done is necessary for the advancement of the work to a reasonable degree is clear. According to data collected by the Rural Sanitation Office from the State health departments, there were in the United States only 154 counties (over 50 per cent rural) which, as of January 1, 1921, were provided with local health service headed by whole-time county health officers. This means that less than 6 per cent of our rural communities are provided with local health service approaching adequacy for the protection of the men, women, and children against readily preventable health demotion, premature death, and economic disaster resulting from costly sickness. Such a situation is of grave importance to the individual citizen, to the local community, and to the whole Nation; it surely should be a matter of acute concern with our local, State, and National Governments. In the items for the promotion of our national welfare none appears more important than reasonably adequate procedure for the protection and the promotion of the health of our people.

Rural health work, on account of distances to be covered and other obvious factors, is relatively more expensive than urban health work. Rural health work protects not only the rural but also the urban population. In the United States rural health work has not made, and under existing conditions can not reasonably be expected to make, the progress that urban health work has made. In a critical period of war the defense or the loss of some of our largest cities might be determined by the factor of strength now lost in any one month from incapacity and death resulting from preventable disease in our rural population. Without assistance and stimulation from central agencies such as the State government and the Federal Government, it now seems clearly established that individual citizens and local



communities in our rural districts will not make the progress in the carrying out of health measures which is critically needed. Our National Government as yet has not done what appears to be its proper and proportionate part in assisting the States in the development of local rural health service. If the Federal Government has a right to cooperate with the States in any line of work, the indication is definite for it to do much more than it is and has been doing for the promotion of cooperative rural health work. This last statement appears amply justified by the results—recorded in this and previous reports—obtained with the small annual investments made by Congress within the last several years for the cooperative rural health work of the Public Health Service.

#### Results.

The cooperative projects in the fiscal year ending June 30, 1921, yielded results exceeding in value manyfold the cost in labor and money. Among the results indicated in the tabular statement, to which especial consideration may be given, are:

1. Public health lectures presenting the principles and details of sanitation to over 136,000 persons.
2. Over 152,000 sanitary inspections of premises, with plain discussion of findings with occupants of the properties.
3. Physical examination of over 63,000 school children, with notification of parents of defects found.
4. Six thousand two hundred and forty-one recorded treatments, effecting correction of incapacitating physical defects among school children, brought about by written notifications and follow-up visits to homes of the children.
5. Twelve thousand visits by health nurses to homes of cases of communicable disease to advise and show the afflicted households how to prevent the spread of the infections.
6. Three thousand one hundred and sixty-one visits by health nurses to prenatal cases to advise with and assist expectant mothers in carrying out hygienic and physiological measures making for healthy mothers and healthy babies.
7. Nine thousand and thirty-five home visits by health nurses to demonstrate hygienic measures for the protection of the health and lives of infants.
8. Fifteen thousand nine hundred and thirty-seven persons inoculated for the prevention of typhoid fever.
9. Twenty thousand and twenty-five persons vaccinated against smallpox, a disease which now should be obsolete in civilized communities and which can be made so by thorough vaccination.
10. Twenty-eight thousand and seventeen treatments to rid persons of venereal disease infection and prevent the spread of the infection.

11. Eight thousand, three hundred and thirty-four cases of dangerous communicable disease quarantined to prevent spread of infection in the local community, the State and throughout the country.

12. The installation of 11,790 sanitary privies and of 753 septic tanks with flush water-closets at homes previously provided with grossly insanitary privies or without toilets of any kind.

13. Five thousand, seven hundred and twenty-six privies repaired so as again to be of sanitary type and provide sanitary protection, restore confidence in the system, and maintain a demonstration of the important principles involved.

14. Two thousand, two hundred and forty-four homes connected for the first time with sanitary sewers.

15. Two thousand, seven hundred and sixty-eight homes provided with clean water supplies in place of contaminated water supplies.

16. Radical improvement of 322 public milk supplies, distributed to a considerable extent through the channels of interstate commerce, to prevent the spread, through that important and economical food, of such infections as those of typhoid fever, scarlet fever, diphtheria, tuberculosis, septic sore throat, and infant diarrhea.

17. Five hundred and fifty-four persons over 40 years of age examined and advised about their need to consult private physicians about methods to conserve their vital capital.

The range and the number of the results obtained indicate the comprehensiveness and the effectiveness of the work. The value of a human life saved can not be measured in dollars and cents; but if consideration be given only to the monetary loss from sickness which was prevented in these demonstration projects, the economy of this business can not be questioned.

Reference was made in the report for the fiscal year 1920 to Madison County, Ala., as an example among the cooperative projects in which a radical reduction in death rate had been effected by the work at a cost of \$66 per life saved. In the fiscal year 1921, the death rate in that county continued low—the total number of deaths reported in the county's population of 50,000 being about 350 less than that reported in each of the several fiscal years before the whole-time county health service was established.

#### Conclusion.

The demonstration rural health work of the Public Health Service has succeeded to such a degree that it now should be put on a cooperative basis so that any rural community in the United States ready to do its proper part might receive from the Federal Government due and logical assistance in the development and maintenance of reasonably adequate local health work.

## DEATHS DURING WEEK ENDED SEPT. 24, 1921.

Summary of information received by telegraph from industrial insurance companies for week ended Sept. 24, 1921, and corresponding week, 1920. (From the Weekly Health Index, Sept. 27, 1921, issued by the Bureau of the Census, Department of Commerce.)

	Week ended Sept. 24, 1921.	Corresponding week, 1920.
Policies in force.....	47,083,403	44,060,477
Number of death claims.....	7,482	6,951
Death claims per 1,000 policies in force.....	8.3	8.2

Deaths from all causes in certain large cities of the United States during the week ended Sept. 24, 1921, infant mortality, annual death rate, and comparison with corresponding week of preceding years. (From the Weekly Health Index, Sept. 27, 1921, issued by the Bureau of the Census, Department of Commerce.)

City.	Estimated population, July 1, 1921.	Week ended Sept. 24, 1921.		Average annual death rate per 1,000. <sup>1</sup>	Deaths under 1 year.		Infant mortality rate, week ended Sept. 24, 1921. <sup>3</sup>
		Total deaths.	Death rate. <sup>1</sup>		Week ended Sept. 24, 1921.	Previous year or years. <sup>2</sup>	
Akron, Ohio.....	229,195	21	4.8	*8.1	5	*5	48
Albany, N. Y.....	115,071	22	10.0	C 16.5	6	C 6	131
Atlanta, Ga.....	207,473	57	14.3	C 16.4	9	C 8	.....
Baltimore, Md.....	752,863	186	12.9	A 15.1	30	A 44	84
Birmingham, Ala.....	186,133	47	13.2	A 15.5	12	A 7	.....
Boston, Mass.....	757,634	191	13.1	A 16.1	26	A 48	70
Bridgeport, Conn.....	149,967	22	7.6	A 13.0	3	A 6	38
Buffalo, N. Y.....	519,608	107	10.7	C 10.5	33	C 31	128
Cambridge, Mass.....	110,444	24	11.3	A 14.1	5	A 6	89
Camden, N. J.....	119,672	22	9.6	.....	5	.....	75
Chicago, Ill.....	2,780,655	533	10.0	A 13.3	106	A 158	.....
Cincinnati, Ohio.....	403,418	97	12.5	C 13.0	13	C 17	86
Cleveland, Ohio.....	831,138	125	7.8	C 11.3	26	C 50	70
Columbus, Ohio.....	245,358	42	8.9	C 12.0	13	C 15	151
Dallas, Tex.....	165,282	30	9.5	A 11.2	7	A 4	.....
Dayton, Ohio.....	158,119	34	11.2	C 8.1	6	C 6	98
Denver, Colo.....	283,152	58	11.5	A 13.2	10	.....	.....
Detroit, Mich.....	1,070,450	176	8.6	C 8.9	55	C 45	104
Fall River, Mass.....	129,668	31	13.4	C 13.0	8	C 10	129
Grand Rapids, Mich.....	141,197	25	9.2	C 9.0	3	C 4	51
Houston, Tex.....	144,340	28	10.1	.....	3	.....	.....
Indianapolis, Ind.....	325,215	82	13.1	C 11.0	8	C 16	62
Jersey City, N. J.....	302,788	55	9.5	C 10.3	11	C 13	76
Kansas City, Kans.....	103,884	20	10.0	C 14.8	1	C 8	24
Kansas City, Mo.....	336,157	82	12.7	C 11.6	7	C 12	.....
Los Angeles, Calif.....	611,921	151	12.9	A 10.5	16	A 10	76
Louisville, Ky.....	235,083	64	14.1	C 11.5	11	C 5	127
Lowell, Mass.....	113,757	16	7.3	A 19.0	3	A 16	48
Memphis, Tenn.....	165,389	55	17.3	C 19.8	6	C 13	.....
Milwaukee, Wis.....	468,386	79	8.8	A 9.7	24	A 22	116
Minneapolis, Minn.....	392,815	87	11.5	C 7.2	9	C 8	51
Nashville, Tenn.....	122,038	35	15.0	C 16.7	5	C 4	.....
New Bedford, Mass.....	125,012	29	12.1	A 15.2	10	A 12	154
New Haven, Conn.....	167,007	34	10.6	C 10.5	4	C 5	48
New Orleans, La.....	394,657	110	14.5	A 17.7	14	A 14	.....
New York, N. Y.....	5,751,867	959	8.7	C 9.6	180	C 177	71
Newark, N. J.....	424,885	85	10.4	C 10.4	20	C 16	89
Norfolk, Va.....	121,260	32	13.8	.....	4	.....	71
Oakland, Calif.....	226,472	41	9.4	A 10.4	4	A 5	51
Omaha, Nebr.....	197,066	52	13.8	.....	4	.....	46
Paterson, N. J.....	137,463	34	12.9	.....	5	.....	85
Philadelphia, Pa.....	1,866,212	375	10.5	*14.0	57	*95	69
Pittsburgh, Pa.....	602,452	124	10.7	C 12.4	26	C 26	92
Portland, Oreg.....	264,850	40	9.6	C 7.4	3	C 1	30
Providence, R. I.....	239,645	57	12.4	C 13.6	11	C 18	89
Richmond, Va.....	175,686	41	12.2	C 13.6	3	C 13	37
Rochester, N. Y.....	305,229	39	6.7	C 9.8	8	C 13	62

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1920.

<sup>3</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1920. Cities left blank are not in the registration area for births.

\* Data based on statistics of 1915, 1916, and 1917.

Deaths from all causes in certain large cities of the United States during the week ended Sept. 24, 1921, infant mortality, annual death rate, and comparison with corresponding week of preceding years. (From the Weekly Health Index, Sept. 27, 1921, issued by the Bureau of the Census, Department of Commerce.)—Continued.

City.	Estimated population July 1, 1921.	Week ended Sept. 24, 1921.		Average annual death rate per 1,000.	Deaths under 1 year.		Infant mortality rate, week ended Sept. 24, 1921.
		Total deaths.	Death rate.		Week ended Sept. 24, 1921.	Previous year or years.	
St. Louis, Mo.....	786,164	148	9.8	C 10.7	12	C 19	.....
St. Paul, Minn.....	237,781	49	10.7	C 11.3	3	C 7	30
Salt Lake City, Utah.....	121,595	26	11.1	A 12.3	3	.....	46
San Francisco, Calif.....	520,546	121	12.1	C 11.4	10	C 12	58
Seattle, Wash.....	327,227	50	8.0	A 6.9	7	A 3	58
Spokane, Wash.....	104,442	20	10.0	C 13.5	4	C 7	87
Springfield, Mass.....	135,877	34	13.0	C 10.3	9	C 6	136
Syracuse, N. Y.....	177,265	47	13.8	C 13.8	5	C 13	60
Toledo, Ohio.....	253,696	41	8.4	A 15.0	9	A 15	91
Trenton, N. J.....	122,760	25	10.6	A 22.0	0	A 12	0
Washington, D. C.....	454,026	92	10.6	A 15.6	13	A 19	76
Wilmington, Del.....	113,498	19	8.7	C 13.6	5	.....	.....
Worcester, Mass.....	184,972	32	9.0	C 12.1	5	C 9	54
Yonkers, N. Y.....	103,324	17	8.6	A 12.6	2	A 5	45
Youngstown, Ohio.....	139,432	26	9.7	C 8.1	9	C 4	114

67202°—21—3

# PREVALENCE OF DISEASE.

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.*

## UNITED STATES.

### CURRENT STATE SUMMARIES.

#### Telegraphic Reports for Week Ended Oct. 1, 1921.

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers.

ARKANSAS.		GEORGIA—continued.	
	Cases.		Cases.
Cerebrospinal meningitis.....	1	Pneumonia.....	2
Chicken pox.....	2	Poliomyelitis.....	1
Diphtheria.....	17	Scarlet fever.....	11
Influenza.....	2	Septic sore throat.....	2
Malaria.....	168	Smallpox.....	1
Measles.....	2	Tuberculosis (pulmonary).....	8
Pellagra.....	2	Typhoid fever.....	25
Scarlet fever.....	4	Whooping cough.....	3
Tuberculosis.....	5		
Typhoid fever.....	24		
COLORADO.		IDAHO.	
(Exclusive of Denver.)			
Chicken pox.....	3	Chicken pox.....	3
Diphtheria.....	44	Diphtheria.....	3
Measles.....	5	Poliomyelitis.....	4
Mumps.....	1	Scarlet fever.....	4
Pneumonia.....	3	Smallpox.....	1
Scarlet fever.....	12	Typhoid fever.....	8
Smallpox.....	1		
Tuberculosis.....	166		
Typhoid fever.....	34		
Whooping cough.....	2		
FLORIDA.		ILLINOIS.	
Cerebrospinal meningitis.....	1	Cerebrospinal meningitis:	
Diphtheria.....	22	Aurora.....	1
Influenza.....	5	Colchester.....	1
Malaria.....	23	Highland.....	1
Ophthalmia neonatorum.....	2	Diphtheria:	
Scarlet fever.....	2	Aurora.....	17
Trachoma.....	11	Chicago.....	194
Typhoid fever.....	8	Cicero.....	17
Typhus fever.....	1	Decatur.....	8
		Greene County—Woodville Township.....	8
		Joliet.....	8
		Lawrence County—Denison Township.....	10
		Peoria.....	12
		Streator.....	9
		Scattering.....	161
		Influenza.....	1
		Pneumonia.....	90
		Poliomyelitis:	
		Alton.....	1
		Beardstown.....	1
		Belvidere.....	1
		Carroll County—Fairhaven Township.....	1
		Champaign.....	1
		Champaign County—Sadorus Township.....	1
		Chicago.....	15
GEORGIA.			
Cerebrospinal meningitis.....	1		
Diphtheria.....	31		
Dysentery (amoebic).....	1		
Hookworm disease.....	1		
Malaria.....	42		
Mumps.....	2		
Paratyphoid fever.....	3		



## CURRENT STATE SUMMARIES—Continued.

## Telegraphic Reports for Week Ended Oct. 1, 1921—Continued.

ILLINOIS—continued.		Cases.
Poliomyelitis—Continued.		
Christian County—Mount Auburn Town-	ship.....	1
Clinton County—Sugar Creek Township..	2	
Cumberland County—Sumpter Township..	1	
Decatur.....	2	
Dekalb County—Dekalb Township.....	1	
Fairview.....	1	
Greenup.....	1	
Henry.....	1	
Jackson County—Levan Township.....	1	
La Salle County—		
Bruce Township.....	1	
Grand Rapids Township.....	1	
South Ottawa Township.....	1	
McLean County—Chenoa Township.....	1	
Macon County—Whitmore Township.....	1	
Madison County—Alhambra Township....	1	
Mason County—Bath Township.....	1	
Mattoon.....	1	
Mendota.....	1	
Montgomery County—Rountree Township	1	
Mount Carmel.....	1	
Naperville.....	1	
Ogle County—Woosung Township.....	1	
Peoria.....	2	
Rock Island.....	1	
South Wilmington.....	1	
Sterling.....	1	
Streator.....	1	
Wabash County—Bellmont precinct.....	1	
West Dundee.....	1	
White City.....	1	
Scarlet fever:		
Chicago.....	61	
Peoria.....	9	
Rockford.....	14	
Scattering.....	90	
Smallpox.....	1	
Typhoid fever.....	80	
IOWA.		
Diphtheria.....	85	
Poliomyelitis.....	9	
Scarlet fever.....	64	
Smallpox.....	2	
KANSAS.		
Cerebrospinal meningitis.....	3	
Chicken pox.....	6	
Diphtheria.....	408	
Influenza.....	1	
Lethargic encephalitis.....	1	
Measles.....	8	
Mumps.....	2	
Pneumonia.....	7	
Poliomyelitis.....	5	
Scarlet fever.....	133	
Septic sore throat.....	2	
Smallpox.....	5	
Tetanus.....	1	
Tonsillitis.....	1	

KANSAS—continued.		Cases.
Tuberculosis.....	24	
Typhoid fever.....	41	
Whooping cough.....	21	
LOUISIANA.		
Diphtheria.....	13	
Lethargic encephalitis.....	1	
Pellagra.....	6	
Scarlet fever.....	10	
Typhoid fever.....	25	
MAINE.		
Chicken pox.....	6	
Diphtheria.....	19	
Lethargic encephalitis.....	1	
Measles.....	7	
Mumps.....	2	
Pneumonia.....	2	
Poliomyelitis.....	2	
Scarlet fever.....	14	
Tuberculosis.....	30	
Typhoid fever.....	7	
Whooping cough.....	2	
MARYLAND. <sup>1</sup>		
Cerebrospinal meningitis.....	1	
Chicken pox.....	7	
Diphtheria.....	41	
Dysentery.....	3	
Influenza.....	5	
Lethargic encephalitis.....	4	
Malaria.....	21	
Measles.....	6	
Mumps.....	3	
Ophthalmia neonatorum.....	2	
Paratyphoid fever.....	2	
Pneumonia (all forms).....	23	
Poliomyelitis.....	16	
Scarlet fever.....	43	
Septic sore throat.....	2	
Tetanus.....	2	
Tuberculosis.....	51	
Typhoid fever.....	67	
Whooping cough.....	43	
MASSACHUSETTS.		
Anthrax.....	2	
Cerebrospinal meningitis.....	2	
Chicken pox.....	18	
Conjunctivitis (suppurative).....	8	
Diphtheria.....	164	
Dysentery.....	1	
German measles.....	4	
Influenza.....	4	
Lethargic encephalitis.....	5	
Malaria.....	2	
Measles.....	48	
Mumps.....	25	
Ophthalmia neonatorum.....	24	
Pellagra.....	1	
Pneumonia (lobar).....	24	

<sup>1</sup> Week ended Friday.

## CURRENT STATE SUMMARIES—Continued.

## Telegraphic Reports for Week Ended Oct. 1, 1921—Continued.

MASSACHUSETTS—continued.		NEW MEXICO—continued.	
	Cases.		Cases.
Poliomyelitis.....	11	Scarlet fever.....	2
Scarlet fever.....	86	Trachoma.....	1
Septic sore throat.....	1	Tuberculosis.....	37
Tetanus.....	2	Typhoid fever.....	4
Trachoma.....	2	Whooping cough.....	5
Tuberculosis (all forms).....	223		
Typhoid fever.....	32		
Whooping cough.....	40		
MISSISSIPPI.		NEW YORK.	
Diphtheria.....	96	(Exclusive of New York City.)	
Scarlet fever.....	8	Cerebrospinal meningitis.....	3
Smallpox.....	3	Diphtheria.....	257
Typhoid fever.....	24	Influenza.....	2
MONTANA.		Lethargic encephalitis.....	1
Diphtheria.....	10	Measles.....	37
Poliomyelitis:		Pneumonia.....	50
Big Sandy.....	1	Poliomyelitis.....	43
Great Falls.....	1	Scarlet fever.....	135
Monarch.....	1	Smallpox.....	2
Power.....	1	Trachoma.....	1
Smallpox.....	20	Typhoid fever.....	90
Typhoid fever.....	3	Whooping cough.....	107
NEBRASKA.		NORTH CAROLINA.	
Cerebrospinal meningitis—Lincoln.....	1	Cerebrospinal meningitis.....	2
Diphtheria:		Chicken pox.....	8
Omaha.....	33	Diphtheria.....	345
Scattering.....	7	German measles.....	4
Lethargic encephalitis—Omaha.....	1	Measles.....	15
Measles.....	2	Ophthalmia neonatorum.....	1
Mumps.....	1	Scarlet fever.....	101
Poliomyelitis:		Septic sore throat.....	7
Burt County.....	1	Smallpox.....	9
Dakota County.....	1	Typhoid fever.....	38
Holt County.....	1	Whooping cough.....	71
Lincoln.....	1		
Scarlet fever.....	15	SOUTH DAKOTA.	
Tuberculosis.....	1	Diphtheria.....	23
Typhoid fever.....	4	Poliomyelitis.....	2
Whooping cough.....	3	Scarlet fever.....	8
NEW JERSEY.		Smallpox.....	72
Cerebrospinal meningitis.....	4	Tuberculosis.....	7
Chicken pox.....	11	Typhoid fever.....	2
Diphtheria.....	145	Whooping cough.....	3
Influenza.....	5		
Malaria.....	3	TEXAS.	
Measles.....	9	Diphtheria.....	15
Pneumonia.....	45	Scarlet fever.....	5
Poliomyelitis.....	13	Typhoid fever.....	5
Scarlet fever.....	68	Whooping cough.....	10
Typhoid fever:		VERMONT.	
Hamilton Township.....	122	Chicken pox.....	30
Trenton.....	138	Diphtheria.....	10
Scattering.....	62	Measles.....	4
Whooping cough.....	48	Mumps.....	3
NEW MEXICO.		Poliomyelitis.....	1
Diphtheria.....	40	Scarlet fever.....	34
Influenza.....	1	Typhoid fever.....	1
		Whooping cough.....	12
		WASHINGTON.	
		Cerebrospinal meningitis—Centralia.....	1
		Chicken pox.....	12

<sup>1</sup> Traced to infected milk.

## CURRENT STATE SUMMARIES—Continued.

## Telegraphic Reports for Week Ended Oct. 1, 1921—Continued.

WASHINGTON—continued.		WEST VIRGINIA—continued.	
	Cases.		Cases.
Diphtheria:		Scarlet fever.....	22
Spokane.....	10	Smallpox.....	2
Scattering.....	9	Typhoid fever.....	16
Measles.....	4		
Mumps.....	3	WISCONSIN.	
Poliomyelitis:		Milwaukee:	
Aberdeen.....	1	Chicken pox.....	4
Chehalis.....	1	Diphtheria.....	40
King County.....	1	Measles.....	3
Seattle.....	4	Pneumonia.....	2
Spokane.....	2	Scarlet fever.....	15
Spokane County.....	1	Smallpox.....	3
Tacoma.....	6	Tuberculosis.....	17
Wenatchee.....	1	Whooping cough.....	16
Scarlet fever:		Scattering:	
Seattle.....	8	Cerebrospinal meningitis.....	2
Spokane.....	8	Chicken pox.....	1
Scattering.....	2	Diphtheria.....	88
Smallpox.....	6	Influenza.....	18
Tuberculosis.....	16	Lethargic encephalitis:	
Typhoid fever.....	14	Polk County—St. Croix Falls.....	1
Whooping cough.....	2	Measles.....	3
		Pneumonia.....	1
WEST VIRGINIA.		Poliomyelitis.....	11
Diphtheria:		Scarlet fever.....	68
Charleston.....	10	Smallpox.....	5
Clarksburg.....	13	Tuberculosis.....	9
Wheeling.....	10	Typhoid fever.....	16
Scattering.....	31	Whooping cough.....	20
Poliomyelitis:			
Clarksburg.....	1		
Montgomery.....	1		

## Reports for Week Ended Sept. 24, 1921.

ALABAMA.		KENTUCKY—continued.	
	Cases.		Cases.
Diphtheria.....	58	Dysentery.....	16
Hookworm disease.....	18	Impetigo contagiosa.....	1
Malaria.....	47	Influenza.....	4
Measles.....	1	Lethargic encephalitis.....	1
Poliomyelitis.....	1	Malaria.....	3
Scarlet fever.....	19	Measles.....	4
Smallpox.....	3	Mumps.....	1
Tuberculosis.....	13	Pneumonia.....	11
Typhoid fever.....	52	Poliomyelitis:	
Whooping cough.....	5	Greenup County.....	1
		Scarlet fever.....	21
DISTRICT OF COLUMBIA.		Smallpox.....	7
Chicken pox.....	1	Tonsillitis.....	2
Diphtheria.....	8	Trachoma.....	1
Measles.....	2	Tuberculosis:	
Poliomyelitis.....	1	Jefferson County.....	14
Scarlet fever.....	4	Scattering.....	9
Tuberculosis.....	24	Typhoid fever:	
Typhoid fever.....	8	Breckinridge County.....	9
Whooping cough.....	5	Scattering.....	54
		Whooping cough.....	21
KENTUCKY.			
Diphtheria:		NEW YORK.	
Clark County.....	9	(Exclusive of New York City.)	
Daviess County.....	15	Diphtheria.....	197
Jefferson County.....	32	Influenza.....	5
Todd County.....	8	Lethargic encephalitis.....	6
Scattering.....	60		

**CURRENT STATE SUMMARIES—Continued.****Reports for Week Ended Sept. 24, 1921—Continued.**

NEW YORK—continued.		NEW YORK—continued.	
	Cases.		Cases.
Measles.....	42	Scarlet fever.....	130
Pneumonia.....	57	Smallpox.....	1
Poliomyelitis:		Tetanus.....	3
Utica.....	10	Typhoid fever.....	60
Scattering.....	47	Whooping cough.....	93

**SUMMARY OF CASES REPORTED MONTHLY BY STATES.**

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
AUGUST, 1921.										
California.....	19	592	61	33	51	1	43	193	152	173
Colorado.....	1	188	1		13		4	31	44	88
Hawaii.....	1	13	7		6					22
Kansas.....	5	235	3	9	7	1	11	256	34	271
Montana.....	1	16	1		3		2	7	32	44
North Dakota.....	1	48			12		7	44	10	8
Ohio.....	10	842	10	5	52		75	490	83	978
Oklahoma.....	4	52		2	2	8	3	45	25	133
Oregon.....		80		1	3		9	16	41	19

**CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921.****ANTHRAX.**

City.	Cases.	Deaths.
Delaware:		
Wilmington.....	1	.....
Louisiana:		
New Orleans.....	1	.....

**CEREBROSPINAL MENINGITIS.**

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. In instances in which data for the full six years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended Sept. 17, 1921.		City.	Median for previous years.	Week ended Sept. 17, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Michigan:			
Birmingham.....	0	1	.....	Detroit.....	1	1	.....
California:				Minnesota:			
Los Angeles.....	0	1	.....	Austin.....			1
San Francisco.....	0		1	Nevada:			
Illinois:				Omaha.....	0	1	1
Chicago.....	1	1	.....	Reno.....	0	1	1
Indiana:				New Jersey:			
Hammond.....	0	1	.....	Elizabeth.....	0	1	.....
Kansas:				New York:			
Kansas City.....	0	1	.....	Elmira.....	0		1
Kentucky:				New York.....	4	9	2
Covington.....	0		2	Yonkers.....	0	1	1
Massachusetts:				Washington:			
Boston.....	1	1	2	Spokane.....	0	1	.....

## CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued.

## DIPHTHERIA.

See p. 2500; also Telegraphic weekly reports from States, p. 2490; and Monthly summaries by States, p. 2494.

## INFLUENZA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
California:			Minnesota:		
San Diego.....	3		Minneapolis.....		1
San Francisco.....	2		Missouri:		
Connecticut:			Kansas City.....		1
Hartford.....		1	New Jersey:		
Meriden.....	1		East Orange.....		
Illinois:			New York:		
Chicago.....	1	1	Albany.....	1	
Elgin.....		1	New York.....	11	3
Massachusetts:			Ohio:		
Somerville.....	1		Hamilton.....		1
Michigan:			Pennsylvania:		
Detroit.....	3		Philadelphia.....		1
Hamtramck.....	1		Tennessee:		
			Nashville.....		1

## LETHARGIC ENCEPHALITIS.

Michigan:			Oregon:		
Pontiac.....	1		Portland.....	1	1
Nebraska:					
Omaha.....		1			

## MALARIA.

Alabama:			Maryland:		
Anniston.....	1		Baltimore.....	2	
Birmingham.....	1		Massachusetts:		
Montgomery.....	2	1	Boston.....	1	
Arkansas:			Dedham.....		3
Little Rock.....	4		Michigan:		
California:			Escanaw.....	1	
Sacramento.....	1		New Jersey:		
San Francisco.....	3		Jersey City.....	2	
Florida:			New York.....	5	
Tampa.....	9		Pennsylvania:		
Georgia:			Philadelphia.....	1	
Savannah.....	2	1	South Carolina:		
Valdosta.....	1		Charleston.....		1
Kansas:			Tennessee:		
Coffeyville.....	1		Memphis.....	6	6
Topeka.....	1		Texas:		
Louisiana:			Beaumont.....		3
New Orleans.....	4		Dallas.....	6	

## MEASLES.

See p. 2500; also Telegraphic weekly reports from States, p. 2490; and Monthly summaries by States, p. 2494.

## PELLAGRA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			Louisiana:		
Birmingham.....	3		New Orleans.....	2	2
Arkansas:			North Carolina:		
Hot Springs.....		1	Greensboro.....		1
California:			Tennessee:		
Riverside.....	1		Memphis.....	1	1
Florida:			Texas:		
Tampa.....	1		Dallas.....	1	1
Georgia:					
Valdosta.....	1				



## CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued.

## PNEUMONIA (ALL FORMS).

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			Michigan—Continued.		
Anniston.....	4	.....	Fontaine.....	.....	1
California:			Saginaw.....	.....	1
Alameda.....	1	.....	Minnesota:		
Berkeley.....	2	1	Minneapolis.....	.....	4
Eureka.....	1	.....	St. Paul.....	.....	3
Long Beach.....	.....	3	Missouri:		
Los Angeles.....	18	5	Kansas City.....	.....	5
Pasadena.....	1	2	St. Joseph.....	.....	2
San Diego.....	.....	1	Nebraska:		
San Francisco.....	4	1	Lincoln.....	.....	1
Santa Barbara.....	.....	1	Omaha.....	.....	6
Stockton.....	.....	1	New Jersey:		
Colorado:			Bloomfield.....	1	.....
Denver.....	.....	6	Elizabeth.....	.....	3
Connecticut:			Gloucester City.....	1	.....
Bridgeport.....	.....	1	Hoboken.....	.....	1
Hartford.....	2	.....	Irvine.....	1	.....
New Haven.....	.....	1	Montclair.....	.....	1
New London.....	.....	1	Orange.....	.....	1
Waterbury.....	.....	1	Passaic.....	1	.....
Delaware:			Perth Amboy.....	.....	1
Wilmington.....	.....	1	Trenton.....	.....	2
District of Columbia:			New York:		
Washington.....	.....	9	Albany.....	4	.....
Florida:			Binghamton.....	.....	1
Tampa.....	.....	1	Buffalo.....	7	.....
Georgia:			Elmira.....	2	.....
Atlanta.....	.....	5	Lackawanna.....	1	.....
Savannah.....	4	.....	Lockport.....	1	.....
Illinois:			Mount Vernon.....	.....	1
Alton.....	1	.....	Newburgh.....	.....	1
Aurora.....	1	.....	New York.....	148	53
Bloomington.....	.....	1	Niagara Falls.....	.....	2
Blue Island.....	2	1	Poughkeepsie.....	1	.....
Chicago.....	68	18	Rochester.....	.....	3
Cicero.....	2	1	Saratoga Springs.....	.....	1
Evanston.....	1	.....	Schneectady.....	1	.....
Galesburg.....	1	.....	Syracuse.....	.....	2
Indiana:			Troy.....	.....	1
East Chicago.....	.....	1	Watertown.....	1	.....
Fort Wayne.....	.....	1	Yonkers.....	3	2
Gary.....	.....	1	North Carolina:		
Indianapolis.....	.....	7	Raleigh.....	.....	1
South Bend.....	.....	1	Ohio:		
Kansas:			Akron.....	1	.....
Topeka.....	.....	2	Alliance.....	.....	1
Wichita.....	.....	1	Chillicothe.....	.....	1
Kentucky:			Cincinnati.....	.....	3
Covington.....	.....	1	Cleveland.....	8	.....
Louisville.....	.....	3	Columbus.....	.....	1
Louisiana:			Dayton.....	1	.....
New Orleans.....	13	9	East Cleveland.....	1	.....
Maine:			Toledo.....	.....	2
Lewiston.....	.....	1	Youngstown.....	.....	1
Maryland:			Oregon:		
Baltimore.....	15	10	Portland.....	.....	1
Cumberland.....	1	.....	Pennsylvania:		
Massachusetts:			Philadelphia.....	22	12
Attleboro.....	.....	1	Rhode Island:		
Boston.....	.....	11	Providence.....	.....	1
Brockton.....	.....	1	South Carolina:		
Cambridge.....	.....	1	Charleston.....	.....	1
Chelsea.....	4	.....	Tennessee:		
Gardner.....	.....	1	Memphis.....	.....	5
Lovell.....	.....	2	Nashville.....	.....	2
Malden.....	.....	1	Texas:		
Methuen.....	.....	1	Dallas.....	1	.....
New Bedford.....	.....	1	Virginia:		
Pittsfield.....	1	.....	Lynchburg.....	.....	1
Quincy.....	1	.....	Norfolk.....	.....	1
Springfield.....	1	.....	Portsmouth.....	.....	1
Watertown.....	1	.....	Richmond.....	.....	2
Worcester.....	.....	1	Rosnoke.....	.....	1
Michigan:			West Virginia:		
Ann Arbor.....	1	.....	Huntington.....	.....	1
Detroit.....	11	5	Wheeling.....	.....	1
Flint.....	1	.....	Wisconsin:		
Grand Rapids.....	2	1	Janesville.....	.....	1
Hamtramck.....	.....	1	Madison.....	.....	1
Highland Park.....	2	.....	Oshkosh.....	.....	2
Muskegon.....	.....	1			

## CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued.

## POLIOMYELITIS (INFANTILE PARALYSIS).

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. In instances in which data for the full six years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended Sept. 17, 1921.		City.	Median for previous years.	Week ended Sept. 17, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
California:				Missouri:			
Oakland.....	0	1	1	Kansas City.....	0	1	
Sacramento.....	0	1		St. Louis.....	0	3	
San Francisco.....	0	3	1	New Jersey:			
Vallejo.....	0	1		Bayonne.....	0	5	
Connecticut:				Elizabeth.....	0	1	
Hartford.....	0	1		Jersey City.....	0	1	
New Haven.....	0	2		Kearny.....	0	1	
Waterbury.....	0	1		West Hoboken.....	0	1	
Illinois:				New York:			
Chicago.....	4	7	1	Buffalo.....	0	1	
Mattoon.....		1		Hudson.....			1
Indiana:				New York.....	2	61	14
Fort Wayne.....	0	1		Watertown.....	0	1	
South Bend.....	0	2		Ohio:			
Iowa:				Akron.....	2	2	
Davenport.....	0	1		Cleveland.....	1	1	
Des Moines.....	0	1		Columbus.....	0	1	1
Kansas:				Oregon:			
Kansas City.....	0	2		Portland.....	0	1	
Maryland:				Pennsylvania:			
Baltimore.....	1	10	3	Lebanon.....	0	1	
Massachusetts:				Philadelphia.....	0	1	
Adams.....		1		Pittsburgh.....	1	1	
Boston.....	1	3		Vermont:			
Everett.....	0	1		Burlington.....	0	1	
Lawrence.....	0	1		Virginia:			
New Bedford.....	0	1		Richmond.....	0		1
Quincy.....	0	1		Washington:			
Westfield.....		1	1	Everett.....	0	1	
Michigan:				Spokane.....		10	
Ann Arbor.....	0	1		Tacoma.....	0	3	
Detroit.....	0	13	6	West Virginia:			
Flint.....	0	1		Fairmont.....		1	
Highland Park.....	0	1		Martinsburg.....	0	1	
Kalamazoo.....	0	1	1	Wisconsin:			
Pontiac.....	0	1		Kenosha.....	0	2	2
Saginaw.....	0	1		Milwaukee.....	0	2	
Minnesota:				Oshkosh.....	0	1	
Minneapolis.....	0	2	1				
Rochester.....		4					
St. Paul.....	1	1	1				

## RABIES IN ANIMALS.

City.	Cases.	Deaths.
Missouri:		
Kansas City.....	2	

## RABIES IN MAN.

Arizona:		
Tucson.....		1

## SCARLET FEVER.

See p. 2500; also Telegraphic weekly reports from States, p. 2490; and Monthly summaries by States, p. 2494.

## CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued.

## SMALLPOX.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full six years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended Sept. 17, 1921.		City.	Median for previous years.	Week ended Sept. 17, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Missouri:			
Mobile.....	0	1		Kansas City.....	1		2
California:				Montana:			
Berkeley.....	0	1		Great Falls.....	0	2	
Los Angeles.....	0	4		North Carolina:			
Oakland.....	0	1		Winston-Salem.....	1	1	
Sacramento.....	0	1		North Dakota:			
San Francisco.....	2	3		Fargo.....	0	1	
Santa Cruz.....	4	1		Ohio:			
Stockton.....	0	3		Canton.....	0	1	
Colorado:				Springfield.....	0	2	
Denver.....	1	1		Oregon:			
Florida:				Portland.....	4	6	
Tampa.....		3		South Carolina:			
Georgia:				Columbia.....	0	1	
Atlanta.....	3	2		Texas:			
Savannah.....	0	1		Waco.....	0	1	
Illinois:				Washington:			
Chicago.....	0	3		Bellingham.....	1	1	
Evanston.....	0	1		Everett.....	0	1	
Indiana:				Tacoma.....	0	2	
Gary.....	2	1		Vancouver.....	0	1	
Iowa:				Walla Walla.....	1	1	
Des Moines.....	0	2		West Virginia:			
Kansas:				Bluefield.....	0	1	
Kansas City.....	0	2		Wisconsin:			
Michigan:				Manitowee.....	0	1	
Ironwood.....	0	1		Milwaukee.....	0	1	
Minnesota:				Sheboygan.....	1	1	
St. Cloud.....	0	2		Superior.....	0	3	
St. Paul.....	3	1					

## TETANUS.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Arkansas:			Minnesota:		
Hot Springs.....		1	Minneapolis.....		1
California:			Missouri:		
Los Angeles.....	2	2	Springfield.....		1
Colorado:			New York:		
Denver.....		1	Buffalo.....	1	1
Connecticut:			New York:	1	
Hartford.....		1	Ohio:		
Illinois:			Toledo.....		1
Chicago.....		1	Youngstown.....	1	1
Kentucky:			Tennessee:		
Louisville.....		1	Memphis.....		1
Maryland:			Virginia:		
Baltimore.....		1	Portsmouth.....		1
Massachusetts:					
Brockton.....	1				

## TUBERCULOSIS.

See p. 2500; also Telegraphic weekly reports from States, p. 2499.

## CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued.

## TYPHOID FEVER.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. In instances in which data for the full six years are incomplete, the median is that for the number of years for which information is available.

City.	Median for pre- vious years.	Week ended Sept. 17, 1921.		City.	Median for pre- vious years.	Week ended Sept. 17, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Massachusetts—Contd.			
Birmingham.....	11	7	3	Leominster.....	0	1	
Montgomery.....	2	1		Lowell.....	2	1	
California:				Melrose.....	0	1	
Long Beach.....	0	1		Somerville.....	0	1	
Los Angeles.....	4	4	1	Wakfield.....	0	1	
Oakland.....	2	2		Worcester.....	3	2	
Sacramento.....	0	1		Michigan:			
San Francisco.....	4	1		Detroit.....	12	11	2
Colorado:				Flint.....	3	1	1
Pueblo.....	9	2		Grand Rapids.....	0	1	
Trinidad.....	0	1		Kalamazoo.....	0	2	
Connecticut:				Port Huron.....	1	1	
Hartford.....	4	4		Saginaw.....	1	4	1
New Haven.....	2	10		Minnesota:			
Norwich.....	0	1		Duluth.....	0	2	
Waterbury.....	2	5	1	Rochester.....	1	1	
District of Columbia:				St. Cloud.....	0	1	
Washington.....	12	3	2	St. Paul.....	3	1	
Georgia:				Missouri:			
Atlanta.....	10	12	2	Cape Girardeau.....	1	1	
Macon.....	0	1		Joplin.....	0	1	
Illinois:				Kansas City.....	1	3	4
Aurora.....	0	2		St. Joseph.....	1	1	1
Bloomington.....	2	1		St. Louis.....	11	5	
Chicago.....	16	10	1	Nebraska:			
Decatur.....	0	1		Lincoln.....	1		1
East St. Louis.....	0	1		Omaha.....	4	3	
Freeport.....	0	1		New Jersey:			
Jacksonville.....	1	2		Elizabeth.....	1	1	
Rockford.....	1	1		Hackensack.....	0	1	
Springfield.....	2	1		Jersey City.....	1	3	
Indiana:				Paterson.....	2	1	
Bloomington.....	0	1		Perth Amboy.....	0	1	
Fort Wayne.....	2	2		Trenton.....	0	3	
Frankfort.....	1	1		New York:			
Huntington.....	0	2		Albany.....	6	2	
Indianapolis.....	4	7	2	Buffalo.....	6	4	
Kokomo.....	0	3		Elmira.....	1	3	
La Fayette.....	0	1		Lockport.....	1	2	
Marion.....	0	1		New York.....	72	70	7
Mishawaka.....	0	4		Niagara Falls.....	0	3	
Muncie.....	0	3		North Tonawanda.....	0	1	
Richmond.....	0	2		Port Chester.....	0	1	
South Bend.....	1	1		Rochester.....	2	4	1
Iowa:				Schenectady.....	0		1
Mason City.....	0	1		Syracuse.....	2	9	
Kansas:				Troy.....	4	2	
Coffeyville.....	0	3		Yonkers.....	0	1	
Kansas City.....	1	5		North Carolina:			
Lawrence.....	1	1		Raleigh.....	1	1	1
Parsons.....	1	1		Wilmington.....	1	3	
Salina.....	1	1		Ohio:			
Topeka.....	0	2		Akron.....	2	4	
Wichita.....	4	3	1	Canton.....	2	1	
Kentucky:				Chillicothe.....	1	2	
Covington.....	1	1		Cincinnati.....	5	2	
Lexington.....	0	1		Columbus.....	5	2	
Louisville.....	7	3		Coshocton.....	0	1	
Paducah.....	0	1		Cuyahoga Falls.....	0	1	
Louisiana:				East Cleveland.....	0	1	
New Orleans.....	3	5	1	Finlay.....	0		1
Maryland:				Hamilton.....	0		
Baltimore.....	33	10	1	Lima.....	2	1	
Cumberland.....	2	2		Marion.....	0	1	
Massachusetts:				Middletown.....	0	1	
Adams.....	0	1		Newark.....	0	1	
Amesbury.....	0	1		Stenberville.....	0	1	
Beverly.....	0	1		Toledo.....	4	6	1
Boston.....	8	3		Zanesville.....	0	1	
Brookton.....	0	2		Oklahoma:			
Fall River.....	6	2		Tulsa.....		2	

## CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued.

**TYPHOID FEVER**—Continued.

City.	Median for pre- vious years.	Week ended Sept. 17, 1921.		City.	Median for pre- vious years.	Week ended Sept. 17, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Oregon:				Tennessee—Continued.			
Portland.....	2	2	.....	Memphis.....	6	1	.....
Pennsylvania:				Nashville.....	9	14	.....
Allentown.....	2	3	.....	Texas:			
Altouns.....	1	2	.....	Corpus Christi.....	0	1	.....
Bethlehem.....	1	4	.....	Dallas.....	2	4	.....
Carnegie.....	0	1	.....	Waco.....	0	1	.....
Farrell.....	0	2	.....	Utah:			
Greensburg.....	0	2	.....	Salt Lake City.....	2	1	.....
Harrisburg.....	2	1	.....	Virginia:			
Hazleton.....	0	2	.....	Alexandria.....	1	2	.....
Johnstown.....	1	1	.....	Danville.....	0	1	.....
Lancaster.....	1	1	.....	Lynchburg.....	2	2	.....
New Castle.....	0	1	.....	Norfolk.....	2	2	.....
Philadelphia.....	28	21	2	Petersburg.....	0	2	.....
Pittsburgh.....	7	41	.....	Portsmouth.....	1	1	.....
Pottsville.....	0	1	.....	Roanoke.....	3	3	.....
Reading.....	1	26	.....	Washington:			
Shamokin.....	0	1	.....	Seattle.....	1	2	.....
Sharon.....	0	1	.....	Spokane.....	0	1	.....
Wilkes-Barre.....	0	1	.....	Walla Walla.....	1	1	.....
Woodlawn.....	.....	1	.....	West Virginia:			
York.....	2	1	.....	Charleston.....	2	3	.....
Rhode Island:				Fairmont.....	1	1	.....
Pawtucket.....	0	1	.....	Huntington.....	0	2	.....
Providence.....	4	3	1	Martinsburg.....	0	4	.....
South Carolina:				Parkersburg.....	0	2	.....
Charleston.....	3	1	.....	Wisconsin:			
Columbia.....	1	1	.....	Ashland.....	0	2	.....
Tennessee:				Eau Claire.....	1	1	.....
Knoxville.....	2	3	.....	Sheboygan.....	1	2	.....

**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.**

City.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Alabama:										
Anniston.....	17,734		5				1			
Birmingham.....	178,270	27	12				5		10	2
Mobile.....	60,151	17								4
Montgomery.....	43,464	12	1							2
Tuscaloosa.....	11,996						1			
Arizona:										
Tucson.....	20,292	11								4
Arkansas:										
Hot Springs.....	11,695	5		1						
Little Rock.....	64,997		4				2		2	
North Little Rock.....	14,048		1				1			
California:										
Alameda.....	28,806	1					1		1	
Berkeley.....	55,886	7					1		1	
Eureka.....	12,923	2								
Long Beach.....	55,593	21			1		1			19
Los Angeles.....	576,673	135	43	1	3		12		81	5
Oakland.....	216,361	46	6		1		1		4	5
Pasadena.....	45,354	16			1				4	3
Richmond.....	16,843	4								
Riverside.....	19,341	4	1							
Sacramento.....	65,857	18	2				1		4	1
San Diego.....	74,683	25					7		8	
San Francisco.....	508,410	92	24	2			9		16	5
Santa Barbara.....	19,441	7								1
Santa Cruz.....	10,917	4								
Stockton.....	40,296	9	1		1				1	1
Vallejo.....	21,107	2	1							



## CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Colorado:										
Denver.....	256,369	54	7				5			12
Greeley.....	10,883	3								
Pueblo.....	42,908		21				12			1
Connecticut:										
Bridgeport.....	143,538	22	10		1		1		5	3
Bristol.....	20,620	3								
Fairfield (town).....	11,475	0								
Hartford.....	138,036	20	4				3		3	2
Manchester (town).....	18,579	4							3	
Meriden.....	34,739		1						1	
Milford (town).....	10,193	2								
New Haven.....	162,519	36	4	1			4		5	1
New London.....	25,088	9								1
Norwalk.....	27,709	4								
Norwich (town).....	23,085	5					1			
Stonington (town).....	19,236	1								
Waterbury.....	91,110	22	3		1		2		5	
Delaware:										
Wilmington.....	110,168	18	1				1			
District of Columbia:										
Washington.....	437,571	99	17		1		4		23	7
Florida:										
Tampa.....	51,252	11								2
Georgia:										
Atlanta.....	209,616	44	8	3			2		1	2
Brunswick.....	14,413	3							1	
Macon.....	52,995	13	8	1						
Savannah.....	84,252	37	3				2		1	2
Valdosta.....	19,783	1	1				1		1	
Idaho:										
Boise.....	21,393	5					2			
Illinois:										
Alton.....	24,682	5	1							
Aurora.....	35,297	8	14							1
Bloomington.....	28,755	9	5							
Blue Island.....	11,424	5								
Centralia.....	12,491	5								
Chicago.....	2,701,765	480	102	7	7	1	76	1	188	42
Cicero.....	44,995	9	10				1		3	
Decatur.....	43,818	10	5	1	1		1			
East St. Louis.....	66,740	9	2				2		1	1
Elgin.....	27,454	10								
Evanston.....	37,215	4	1							
Forest Park.....	19,768	2			1		2			
Freeport.....	19,669	4	1				1			
Galesburg.....	23,834	1								
Jacksonville.....	15,712	7					1			
La Salle.....	13,059	3							1	
Mattoon.....	13,552	1	4							
Oak Park.....	39,830	13	2		1					
Pekin.....	12,086		3				1			
Peoria.....	76,121	20	15				8		3	
Quincy.....	35,978	11	4				2		3	1
Rockford.....	65,651	16	2	1	1		3			1
Rock Island.....	35,177	6					4			1
Springfield.....	59,183	8	2				1			
Indiana:										
Bloomington.....	11,595	3							3	
East Chicago.....	35,967	9		1						
Elkhart.....	24,277	2	1				1		1	1
Fort Wayne.....	36,549	20	5				1		1	2
Frankfort.....	11,585	0					1			
Gary.....	55,378	9	2				1			
Hammond.....	36,004	7	11				10	1	2	
Huntington.....	14,009	2								
Indianapolis.....	314,194	79	31	1	1		5		4	8
Kokomo.....	30,067	10								
La Fayette.....	22,446	7					2		1	
Logansport.....	21,626	5					1		2	2
Marion.....	23,747	7	2							1
Mishawaka.....	15,195	3	1							1
Muncie.....	36,624	5			1		1		1	
Richmond.....	26,765	8					1		1	
South Bend.....	70,983	11					1		4	
Terre Haute.....	66,083	13	7							

**CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued.**  
**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.**

City.	Popula- tion Janu- ary 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<b>Iowa:</b>										
Burlington.....	24,077	3	2	.....	.....	.....	.....	.....	.....	.....
Council Bluffs.....	36,162	8	2	.....	.....	.....	.....	.....	.....	.....
Davenport.....	56,727	.....	2	.....	.....	.....	.....	.....	.....	.....
Des Moines.....	126,468	.....	9	.....	.....	.....	.....	.....	.....	.....
Mason City.....	20,065	4	.....	.....	.....	2	.....	.....	.....	.....
Muscatine.....	16,068	4	.....	.....	.....	.....	.....	.....	.....	.....
Sioux City.....	71,227	4	1	.....	.....	4	.....	.....	.....	.....
<b>Kansas:</b>										
Atchison.....	12,630	.....	2	.....	.....	1	.....	.....	.....	.....
Coffeyville.....	13,452	1	4	.....	.....	.....	.....	.....	.....	.....
Fort Scott.....	10,693	2	2	.....	.....	.....	.....	.....	.....	.....
Kansas City.....	101,177	9	9	.....	.....	1	.....	1	.....	.....
Lawrence.....	12,456	0	1	.....	.....	.....	.....	.....	.....	.....
Leavenworth.....	16,912	.....	6	.....	.....	.....	.....	.....	.....	.....
Parsons.....	16,028	4	.....	.....	.....	.....	.....	.....	.....	.....
Salina.....	15,085	5	4	.....	.....	.....	.....	.....	.....	.....
Topeka.....	50,022	17	32	.....	.....	6	.....	14	.....	.....
Wichita.....	72,128	21	18	1	.....	11	.....	1	.....	.....
<b>Kentucky:</b>										
Covington.....	57,121	17	.....	.....	.....	1	.....	2	2	.....
Lexington.....	41,534	12	2	.....	1	.....	.....	.....	.....	.....
Louisville.....	234,891	46	21	.....	5	.....	1	13	4	.....
<b>Louisiana:</b>										
New Orleans.....	387,219	146	10	1	1	.....	2	31	8	.....
<b>Maine:</b>										
Auburn.....	16,985	8	.....	.....	.....	2	.....	.....	1	.....
Bangor.....	25,978	.....	1	.....	.....	.....	.....	.....	.....	.....
Bath.....	14,731	3	.....	.....	.....	.....	.....	.....	1	.....
Lewiston.....	31,791	9	4	.....	.....	3	.....	1	.....	.....
Portland.....	69,272	13	.....	.....	.....	.....	.....	.....	.....	.....
Sanford.....	10,691	1	.....	.....	.....	.....	.....	.....	.....	.....
<b>Maryland:</b>										
Baltimore.....	733,826	184	8	2	3	1	.....	36	16	.....
Cumberland.....	29,827	10	1	.....	.....	5	.....	1	.....	.....
<b>Massachusetts:</b>										
Amesbury.....	10,036	1	1	.....	.....	.....	.....	.....	1	.....
Arlington.....	18,955	5	1	.....	.....	.....	.....	.....	1	.....
Attleboro.....	19,731	7	1	.....	.....	.....	.....	.....	.....	.....
Beltmont.....	10,749	1	1	.....	.....	.....	.....	.....	.....	.....
Beverly.....	22,561	2	2	.....	.....	.....	.....	.....	.....	.....
Boston.....	748,060	167	20	.....	9	1	12	48	15	.....
Brockton.....	66,138	11	2	.....	.....	.....	.....	1	.....	.....
Brookline.....	37,748	5	.....	.....	.....	.....	.....	.....	.....	.....
Cambridge.....	109,694	19	3	.....	.....	2	.....	6	5	.....
Chelsea.....	43,181	12	1	.....	.....	2	.....	2	.....	.....
Chicopee.....	36,214	8	.....	.....	.....	.....	.....	.....	1	.....
Clinton.....	12,979	3	.....	.....	.....	.....	.....	1	.....	.....
Dedham.....	10,792	2	.....	.....	.....	3	.....	1	.....	.....
Easthampton.....	11,761	.....	.....	.....	.....	1	.....	.....	.....	.....
Everett.....	40,126	4	4	.....	.....	.....	.....	.....	.....	.....
Fall River.....	120,485	34	.....	.....	.....	.....	.....	5	2	.....
Gardner.....	16,971	5	.....	.....	.....	.....	.....	1	.....	.....
Greenfield.....	15,462	3	2	.....	.....	.....	.....	1	.....	.....
Haverhill.....	53,884	9	.....	.....	.....	.....	.....	.....	.....	.....
Lawrence.....	94,270	16	3	.....	.....	.....	.....	2	.....	.....
Leominster.....	19,744	7	.....	.....	.....	3	.....	.....	1	.....
Lowell.....	112,479	24	.....	.....	.....	.....	.....	4	1	.....
Lynn.....	99,148	18	5	1	.....	1	.....	3	1	.....
Malden.....	49,103	.....	7	.....	.....	.....	.....	6	1	.....
Medford.....	39,038	1	1	.....	.....	.....	.....	.....	.....	.....
Melrose.....	18,204	3	.....	.....	.....	.....	.....	.....	.....	.....
Methuen.....	15,189	2	.....	.....	.....	.....	.....	.....	.....	.....
New Bedford.....	121,217	22	2	.....	.....	2	.....	5	.....	.....
Newburyport.....	15,618	.....	.....	.....	.....	.....	.....	.....	.....	.....
Newton.....	46,054	4	3	.....	.....	.....	.....	2	.....	.....
North Adams.....	22,282	.....	.....	.....	.....	1	.....	1	1	.....
Northampton.....	21,951	5	.....	.....	.....	.....	.....	1	.....	.....
Norwood.....	12,627	0	.....	.....	.....	.....	.....	.....	.....	.....
Peabody.....	19,552	1	1	.....	.....	1	.....	.....	.....	.....
Pittsfield.....	41,771	5	1	.....	.....	1	.....	4	1	.....
Plymouth.....	13,045	9	.....	.....	.....	.....	.....	.....	.....	.....
Quincy.....	47,876	7	2	.....	2	.....	.....	2	.....	.....
Saugus.....	10,874	1	.....	.....	.....	.....	.....	.....	.....	.....
Somerville.....	93,091	6	.....	.....	.....	.....	.....	4	.....	.....

## CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Massachusetts—Continued.											
Southbridge.....	14,245	2							1		
Springfield.....	129,563	17	2				3		2	1	
Taunton.....	37,137	10									
Warefield.....	13,025	0	1						1		
Waltham.....	30,915	6		1	1						
Watertown.....	21,457	2	1							2	
Webster.....	13,258	1									
West Springfield.....	13,443	1									
Westfield.....	18,694	2									
Winthrop.....	15,455	3					1				
Woburn.....	16,574	5									
Worcester.....	179,754	31	9	1			2			1	
Michigan:											
Ann Arbor.....	19,516	13	1	1			2				
Battle Creek.....	36,164		1				2				
Benton Harbor.....	12,233	0									
Detroit.....	993,739	161	44	4	4		37	1	53	14	
Flint.....	91,799	17	17				4				
Grand Rapids.....	137,634	19	8		2				5		
Hamtramck.....	48,615	16	7						1	1	
Highland Park.....	46,469	10	3								
Ironwood.....	15,739	2					1		1		
Kalamazoo.....	48,858	18	10				3		1	1	
Marquette.....	12,718	4									
Muskegon.....	36,579	7	3						1		
Pontiac.....	31,773	7	8				5		2	1	
Port Huron.....	25,944	10					3				
Saginaw.....	61,903	17	2				5			1	
Sault Ste. Marie.....	12,096	2					1				
Minnesota:											
Austin.....	10,118	8									
Duluth.....	98,917	9			2		2		1		
Hibbing.....	15,089						1				
Minneapolis.....	380,582	71	32				28	1	16	4	
Rochester.....	13,722	12									
St. Cloud.....	15,873		3								
St. Paul.....	234,595	31	26	3	2		7	1	16	2	
Winona.....	19,143	4	1				2				
Missouri:											
Cape Girardeau.....	10,252	2					1			1	
Joplin.....	29,855										
Kansas City.....	321,410	93	15	1			6		3	5	
St. Joseph.....	77,939	27	3				8			1	
St. Louis.....	772,897	161	25	1	1		9		29	12	
Springfield.....	39,631	7									
Montana:											
Billings.....	15,100	5					2				
Great Falls.....	21,121	6					1				
Missoula.....	12,668	6								1	
Nebraska:											
Lincoln.....	54,934	9	1	1							
Omaha.....	191,601	53	28	2			3			4	
Nevada:											
Reno.....	12,016	5									
New Hampshire:											
Berlin.....	16,104	3									
Concord.....	22,167	3					2				
Dover.....	13,029	3									
Keene.....	11,210	2					3				
Nashua.....	28,379	6	1								
New Jersey:											
Asbury Park.....	12,400	4							1		
Bayonne.....	76,754		1				2		2		
Belleville.....	15,660								1		
Bloomfield.....	22,019	0	2		2						
Clifton.....	26,470	5	2	1			1		1	1	
East Orange.....	50,710		2						1		
Elizabeth.....	95,682		9		1		3		3	1	
Garfield.....	19,381	3	2						1		
Gloucester City.....	12,162		2		1				1		
Hackensack.....	17,667	6					1		4		
Hoboken.....	68,166	15					1		4	2	
Irvington.....	25,480						1		2		
Jersey City.....	297,864		6				3		12		
Kearny.....	26,724	4			1		1	1	1		

## CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued..

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Popula- tion Janu- ary 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
New Jersey—Continued.											
Montclair.....	28,810	4					1		1		
Morristown.....	12,548	5					3				
New Brunswick.....	32,779	5	2								
Orange.....	33,268	8					3				
Passaic.....	63,824	16	2				1		3		
Paterson.....	135,866		2						8		
Perth Amboy.....	41,707	6	11				4		1		
Phillipsburg.....	16,923	4							1		
Plainfield.....	27,700	6									
Rahway.....	11,042	7									
Summit.....	10,174	2									
Trenton.....	119,289	19	5						2		
West Hoboken.....	40,068	3									
West New York.....	29,926	2									
West Orange.....	15,573	1					1				
New Mexico:											
Albuquerque.....	15,157	3							3		
New York:											
Albany.....	113,344		6				2				
Auburn.....	36,192	5	4				2				
Binghamton.....	66,800	10	3								
Buffalo.....	509,775	97	13	1	1		17		25	13	
Elmira.....	45,305	13	2	1	1		1	1	1		
Geneva.....	14,648	1									
Glens Falls.....	16,638	4									
Hudson.....	11,745	6									
Jamestown.....	38,917	9	3						3		
Lackawanna.....	17,918	1	1				1		1		
Lockport.....	21,308	7		2							
Mount Vernon.....	42,726	10	2						3		
Newburgh.....	30,366	13	4						2		
New York.....	5,621,151	967	111	3	29	1	46		1,302	191	
Niagara Falls.....	50,760	12	9				3				
North Tonawanda.....	15,482	4	3	1							
Ogdensburg.....	14,609	13									
Olean.....	20,506	7									
Peekskill.....	15,868	4	3								
Port Chester.....	16,573	2	1								
Poughkeepsie.....	35,000	5							2		
Rochester.....	295,750	52	14				2		9		
Saratoga Springs.....	13,181	8							1		
Schenectady.....	88,723	19	3				5				
Syracuse.....	171,717	33	18	2	1		9		3		
Troy.....	72,013	12							4		
White Plains.....	21,031	3							2		
Yonkers.....	100,226	7	5				2				
North Carolina:											
Charlotte.....	46,338	8		2					1		
Durham.....	21,719	3	2								
Greensboro.....	19,861	3									
Raleigh.....	24,418	15	5								
Rocky Mount.....	12,712	2									
Wilmington.....	33,372	18	5				1				
Winston-Salem.....	48,395	12	1				1		2		
North Dakota:											
Fargo.....	21,961	0	2				5				
Grand Forks.....	14,010		2								
Ohio:											
Akron.....	208,435	30	19				8				
Alliance.....	21,603	6									
Barberton.....	18,811	2	3				1				
Canton.....	87,091	15	8				3				
Chillicothe.....	15,831	5									
Cincinnati.....	401,217	107	13		1		4		13	12	
Cleveland.....	796,836		29		2		23				
Columbus.....	237,631	55	8		1		3		5	6	
Coshocton.....	10,817		1								
Cuyahoga Falls.....	10,200	3									
Dayton.....	152,559	23	4		1		4		1		
East Cleveland.....	27,292	0					1				
Findlay.....	17,021	4									
Hamilton.....	39,675	10	7	1			6	1			
Ironton.....	14,007	2	1								

<sup>1</sup> Pulmonary tuberculosis only.

## CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Ohio—Continued.										
Lancaster	14,706	4								
Lima	41,306	7	5							1
Lorain	37,295		2				5			
Marion	27,891		4							
Middletown	23,594	5	5							
Newark	26,718	7	11	1						
New Philadelphia	10,718		3							
Niles	13,080	3					1			
Norwood	21,966	1	1				1		1	
Piqua	15,044	2							1	
Sandusky	22,897	5	1				1			
Springfield	60,840	12	13		2				1	1
Steubenville	28,508	6	1						1	
Tiffin	14,375	4								
Toledo	243,109	43	66				5			5
Youngstown	132,358		4	1	2		2			1
Zanesville	29,569	9	2						1	1
Oklahoma:										
Tulsa	72,075		6				1		6	
Oregon:										
Portland	258,288	38	33		1		5		4	4
Pennsylvania:										
Allentown	73,502		3				2			
Altoona	60,331		1				3			
Ambridge	12,730		2						1	
Bethlehem	50,358		1							
Butler	23,778		1							
Canonsburg	10,632						3			
Carlisle	10,916		3							
Carnegie	11,516		2							
Carrick	10,504		1							
Donora	14,131		2						1	
Dubois	13,681		1							
Duquesne	19,011						3			
Easton	33,813				2				1	
Erie	93,372		5						7	
Farrell	15,586				4		5			
Greensburg	15,033		1				1			
Harrisburg	75,917		5							
Hazleton	32,277		1				1			
Jeannette	10,627						2			
Johnstown	67,327		9							
Lancaster	53,150		2							
Lebanon	24,613		1							
McKeesport	45,975		2				2		2	
McKees Rocks	16,713		3				2		1	
Monessen	18,179		1				1			
Mount Carmel	17,469								2	
Nanticoke	22,614		1							
New Castle	44,938						1			
New Kensington	11,987		1							
North Braddock	14,928		2				1		1	
Oil City	21,274		1							
Philadelphia	1,823,158	366	20	2			40	1	35	27
Phoenixville	10,484								1	
Pittsburgh	588,193		32		1		13		13	
Plymouth	16,500		2						2	
Pottstown	17,431		1							
Pottsville	21,876		1							
Punxsutawney	10,311						1			
Reading	107,784		5				1			
Seranton	137,783		8							
Shamokin	21,204		1							
Sharon	21,747		1				3			
Sunbury	15,721		1				1			
Uniontown	15,692		2							
Warren	14,256		9							
Washington	21,480		2				1			
West Chester	11,717		1							
Wilkes-Barre	73,833		6							
Wilkinsburg	24,403		1							
Williamsport	36,198		3						1	
Woodlawn	12,495		1							
York	47,512		3				1			



## CITY REPORTS FOR WEEK ENDED SEPT. 17, 1921—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Rhode Island:										
Cranston.....	29,407	3	2	1						
Cumberland (town).....	10,077	2								
East Providence (town).....	21,793		1				1			
Newport.....	30,255		1				2			
Pawtucket.....	64,248	14					1			
Providence.....	237,595	56	3				1			3
South Carolina:										
Charleston.....	67,957	23	2				3		1	5
Columbia.....	37,524		3				2			
South Dakota:										
Sioux Falls.....	25,176	5	2				1			
Tennessee:										
Chattanooga.....	57,895		7				2			
Knoxville.....	77,818		4	1						
Memphis.....	162,351	51	11				1			
Nashville.....	118,342	29	6				3		2	2
Texas:										
Beaumont.....	40,422	11								
Corpus Christi.....	10,522	2								
Dallas.....	158,976	37		1	2		1		2	2
El Paso.....	77,543	22					1			2
Galveston.....	44,255	9								
Waco.....	38,500	6								
Utah:										
Salt Lake City.....	118,110	31	2				3		4	2
Vermont:										
Barre.....	10,068						2			
Burlington.....	22,779	5	3				4			
Rutland.....	14,954	5	1							
Virginia:										
Alexandria.....	18,060	3								1
Danville.....	21,539	5	3							1
Lynchburg.....	29,956	8	3							
Norfolk.....	115,777		5				2		4	1
Petersburg.....	31,002	10	5		1		1		3	4
Portsmouth.....	54,587	9	2				2			1
Richmond.....	171,667	28	3				3		4	2
Roanoke.....	50,842	10	13				6			2
Washington:										
Bellingham.....	25,570						1			
Everett.....	27,644				1		1			
Seattle.....	315,632		5				5		6	
Spokane.....	104,437		2		1		8			
Tacoma.....	96,965						2			
West Virginia:										
Bluefield.....	15,282		1							
Charleston.....	39,608	8	5				2			1
Fairmont.....	17,851		4				1			
Huntington.....	50,177	16	1				1			4
Martinsburg.....	12,515	0								
Morgantown.....	12,127		2							
Moundsville.....	10,669	1					3			
Parkersburg.....	20,050	2	3							
Wheeling.....	54,322	16	4				4		1	2
Wisconsin:										
Appleton.....	19,561		1				2			
Beloit.....	21,784	1	1				1		1	
Eau Claire.....	20,880						1			
Fond du Lac.....	23,427	8	2				1			1
Green Bay.....	31,017		3							
Janesville.....	18,293	6			2					
Kenosha.....	40,472	9	3							2
Madison.....	38,378	6	1				1			
Marinette.....	13,610		1				1			1
Milwaukee.....	457,147		32				23		28	
Oshkosh.....	33,162	13	1				1		2	
Racine.....	58,593	6	5				15			
Sheboygan.....	30,955		2							
Superior.....	39,624	3					4			
Wausau.....	18,661		2						1	
Wyoming:										
Cheyenne.....	13,829	3					1			

## FOREIGN AND INSULAR.

### YELLOW FEVER ON VESSEL.

**Steamship "Monterey"—At Vera Cruz from Progreso, Mexico.**

According to information dated September 18, 1921, a case of yellow fever developed in a person arrived at Vera Cruz, Mexico, on the steamship *Monterey*, which sailed from Progreso, Yucatan, Mexico, September 15, 1921.

### BERMUDA.

#### Typhoid Fever.

During the three weeks ended September 17, 1921, seven cases of typhoid fever were reported in Bermuda. (Officially estimated population, 20,801.)

### BRAZIL.

#### Plague—Pindobassu.

An epidemic of plague has been reported at Pindobassu, a locality 200 miles west of Bahia, Brazil, with 60 deaths from the disease during the first two weeks of August, 1921.

### BRITISH HONDURAS.

#### Yellow Fever—Belize.

A death from yellow fever was reported October 1, 1921, at Belize, British Honduras.

### CUBA.

#### Communicable Diseases—Habana—Provinces.

Communicable diseases have been notified in Cuba as follows:

#### *Habana.*

Disease.	Sept. 1-10, 1921.		Remain- ing under treatment Sept. 10, 1921.
	New cases.	Deaths.	
Cerebrospinal meningitis.....	2	2	2
Chicken pox.....	1		2
Diphtheria.....	4	1	2
Leprosy.....			11
Malaria.....	31		177
Scarlet fever.....			1
Smallpox.....	1		1
Typhoid fever.....	10	7	30

<sup>1</sup> From the interior, 63.

<sup>2</sup> From the interior, 1.

<sup>3</sup> From the interior, 16; from abroad, 2.

*Provinces.*

Province.	Cases reported, Sept. 1-10, 1921.								
	Cerebro-spinal meningitis.	Chicken pox.	Diphtheria.	Malaria.	Measles.	Polio-myelitis (infantile paralysis).	Scarlet fever.	Small-pox.	Typhoid fever.
Camaguey.....			2	74				98	4
Habana.....	2	1	9	31	1	1		1	19
Matanzas.....		3	1						8
Oriente.....			1	120	3			52	18
Pinar del Rio.....			6	3		1	1		7
Santa Clara.....		2	2	12		1		5	13
Total.....	2	6	21	240	4	3	1	156	69

**ECUADOR.****Plague—Plague-Infected Rats—Guayaquil.**

During the period August 16 to 31, 1921, two cases of plague with one death, were reported at Guayaquil, Ecuador. The finding of plague-infected rodents was reported as follows: August 1 to 15, 18 plague-infected rats out of 372 rats examined; August 16 to 31, 36 rats out of 915 examined.

**JAMAICA.****Infectious Disease (Alastrim or Kaffir Pox).**

Alastrim or Kaffir pox has been reported in the Island of Jamaica as follows: Week ended September 3, 1921, 41 new cases; week ended September 10, 1921, 39 new cases.

**Typhoid Fever—Kingston and Vicinity.**

Typhoid fever has been reported in Kingston and the surrounding country as follows: Week ended September 3, 1921, Kingston, 6 cases, vicinity, 34 cases; week ended September 10, 1921, Kingston, 1 case, vicinity, 28 cases.

**MEXICO.****Plague-Infected Rat—Progreso.**

The finding of a plague-infected rat was reported at Progreso, Mexico, September 10, 1921. The rat was stated to have been found in the storeroom of a grocery store located in the central business section of the city.

**Plague-Infected Rodents—Tampico.**

During the week ended September 25, 1921, five plague-infected rodents were reported found at Tampico.

**Yellow Fever—Tierra Blanca.**

A case of yellow fever was reported, September 19, 1921, at Tierra Blanca, State of Vera Cruz, Mexico. The case was stated to have arrived at Vera Cruz, Mexico, on the steamship *Monterey*, which sailed from Progreso September 15, 1921. Tierra Blanca is an interior town situated on the line of railway.

**Yellow Fever—Tlacotalpan.**

Yellow fever was reported present at Tlacotalpan, State of Vera Cruz, Mexico, September 25, 1921.

**PORTO RICO.****Plague Rat—On Steamship "San Luis."**

The finding of a plague-infected rat on the steamship *San Luis*, in the harbor of San Juan, Porto Rico, was reported September 9, 1921. The *San Luis* was employed in connection with the dredging of the harbor.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.****Reports Received During Week Ended Oct. 7, 1921.<sup>1</sup>****CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
India.....				July 10-16, 1921: Deaths, 8,185.
Bombay.....	July 24-Aug. 6.....	20	14	
Calcutta.....	Aug. 14-20.....	5	5	
Karachi.....	.....do.....	16	13	
Rangoon.....	Aug. 7-13.....	1		
Philippine Islands:				
Manila.....	July 31-Aug. 20.....	7	1	
Province—				
Batangas.....	July 17-23.....	1		
Cavite.....	July 10-16.....	1	1	
Union.....	July 17-Aug. 6.....	1	1	

**PLAGUE.**

Asia Minor:				
Smyrna.....	Aug. 28-Sept. 3....	1		In district.
Azores:				
St. Michael Island—				
Ribeira Grande.....	.....do.....	3	1	10 miles from port of Ponta Delgada.
Brazil:				
Bahia.....	July 31-Aug. 6....	1	1	
Pindobassu.....				Locality 200 miles west of Bahia; plague reported epidemic in August, 1921, with 60 deaths.
China:				
Amoy.....	Aug. 7-27.....		7	
Ecuador:				
Guayaquil.....	Aug. 16-31.....	2	1	Plague rats found: Aug. 1-15, 1921, 18; Aug. 16-31, 1921, 36. Jan. 1-Sept. 1, 1921: Cases, 206; deaths, 107.
Egypt:				
City—				
Alexandria.....	Aug. 19-30.....	15	2	Of these, nine cases were clinically verified and officially declared.
Port Said.....	Aug. 20.....	1		
Province—				
Gharbieh.....	Sept. 1.....	1		

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

## **Reports Received During Week Ended Oct. 7, 1921—Continued.**

### **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	• Remarks.
India.....				July 24-Aug. 6, 1921: Cases, 674; deaths, 474.
Bombay.....	July 24-Aug. 6.....	9	7	
Rangoon.....	Aug. 7-13.....	30	26	
Mesopotamia:				
Bagdad.....	July 1-31.....	1	1	
Mexico:				
Progreso.....				Plague rat reported found Sept. 10, 1921.
Tampico.....				Sept. 19-25, 1921: Infected rodents found, 5.
Porto Rico:				
San Juan.....				Plague infected rat on steamship San Luis in San Juan Harbor, Sept. 9, 1921.
Syria:				
Beirut.....	Aug. 1-7.....	1		
Turkey:				
Constantinople.....	Aug. 21-Sept. 3.....	3	1	
On vessel:				
Steamship San Luis.....	Sept. 9.....			At San Juan, P. R., in harbor.

### **SMALLPOX.**

Australia:				
Victoria—				
Geelong.....	July 12-29.....	2		First reported epidemic in May, 1921.
Brazil:				
Rio de Janeiro.....	July 31-Aug. 27....	47	8	
Canada:				
Manitoba—				
Winnipeg.....	Aug. 28-Sept. 17....	6		
New Brunswick—				
Charlotte County.....	Sept. 4-10.....	1		
Ontario—				
Toronto.....	Sept. 18-24.....	1		
Saskatchewan—				
Moose Jaw.....	Sept. 4-10.....	1		
China:				
Chungking.....	Aug. 7-29.....			Present.
Foochow.....	Aug. 7-13.....			Do.
Manchuria—				
Mukden.....	Aug. 14-20.....			Do.
Tientsin.....	do.....	2		
Cuba:				
Antilla.....	Sept. 4-10.....	3		
Nuevitas.....	Sept. 12-18.....	6		Reported found at Redencion about 15 miles from Nuevitas.
Ecuador:				
Eloy Alfaro.....	Aug. 1-15.....	1		
Guayaquil.....	do.....	3		
France:				
Cherbourg.....	Aug. 1-31.....	1		Varioloid.
Paris.....	July 22-31.....	2	1	
Great Britain:				
Nottingham.....	Aug. 21-27.....	6		
Haiti:				
Cape Haitien.....	Aug. 21-Sept. 10....	43	6	
India.....				July 10-16, 1921: Deaths, 183.
Bombay.....	July 24-Aug. 6.....	11	7	
Calcutta.....	Aug. 14-20.....	1	1	
Rangoon.....	Aug. 7-13.....	1		
Java:				
West Java—				
Batavia.....	July 22-Aug. 4.....	11	12	
Buitenzorg.....	do.....	2	1	
Garoet.....	do.....	3		
Krawang.....	do.....	14	1	
Mexico:				
Guadalajara.....	June 1-30.....	3		
Do.....	July 1-Aug. 31.....	10	3	
Mexico City.....	Aug. 14-27.....	37		
Vera Cruz.....	Sept. 5-11.....		1	Including municipalities in Federal District.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

## **Reports Received During Week Ended Oct. 7, 1921—Continued**

### **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Panama:				
Panama.....	Sept. 4-19.....	3		One nonresident from interior.
Portuguese East Africa:				
Lourenco Marques.....	July 1-Aug. 5.....	1	4	
Russia:				
Esthonia.....	July 1-31.....	7		Province.
Spain:				
Barcelona.....	Aug. 10-21.....		4	
Switzerland:				
Zurich.....	Aug. 28-Sept. 3.....	1		
Tunis:				
Tunis.....	Aug. 27-Sept. 2.....	2	1	
Union of South Africa:				
Transvaal—				
Johannesburg.....	July 1-31.....	2		

### **TYPHUS FEVER.**

Asia Minor:				
Smyrna.....	Aug. 28-Sept. 3.....	1		
Canary Islands:				
Teneriffe.....	Aug. 14-20.....		1	
China:				
Antung.....	Aug. 15-21.....	1		
Jugoslavia:				
Zagreb.....	Aug. 7-20.....	22	2	
Mexico:				
Mexico City.....	Aug. 14-27.....	34		Including municipalities in Federal district.
Russia:				
Esthonia.....	July 1-31.....	50		Province.
Spain:				
Madrid.....	do.....		2	
Turkey:				
Constantinople.....	Aug. 20-Sept. 3.....	5		

### **YELLOW FEVER.**

British Honduras:				
Belize.....	Oct. 1.....		1	
Mexico:				
Vera Cruz (State)—				
Tierra Blanca.....	Sept. 19.....	1		Case arrived at Vera Cruz on steamship Monterey from Progreso, Mexico.
				Present.
Tlaxotalpan.....	Sept. 25.....			
Vera Cruz.....	Sept. 18.....	1	1	
On vessel:				
Steamship Monterey.....	do.....	1		At Vera Cruz from Progreso, Mexico, Sept. 15, 1921. Patient went to Tierra Blanca.

## **Reports Received from July 2 to Sept. 30, 1921.**

### **CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....	July 3-Aug. 6.....		10	
Shanghai.....	Aug. 1-21.....	24	1	18 Chinese, 6 foreign.
India:				
Bombay.....	May 1-June 18.....	11	10	Mar. 6-June 25, 1921: Deaths, 75,281. July 3-9, 1921: Deaths, 6,328.
Do.....	June 26-July 23.....	18	10	
Calcutta.....	May 8-June 25.....	597	521	
Do.....	June 26-July 23.....	125	105	
Karachi.....	July 10-Aug. 13.....	55	54	
Madras.....	May 15-June 25.....	3	2	
Do.....	June 26-Aug. 13.....	11	6	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from July 2 to Sept. 30, 1921—Continued.**

## **CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India—Continued.</b>				
Rangoon.....	Apr. 24-June 25...	18	17	
Do.....	June 26-Aug. 6....	14	8	
<b>Indo-China.</b>				Jan. 1-31, 1921: Cases, 80; deaths, 15. May 29-June 12, 1921: Cases, 251; deaths, 202.
City—				
Cholon.....	June 6-12.....	5	4	
Saigon.....	May 9-June 12....	65	44	
Do.....	July 4-31.....	100	91	Not epidemic; disseminated in neighboring Provinces.
Province—				
Anam.....	Jan. 1-31.....	42		In January, 1920: No cases.
Cambodia.....	do.....	8	2	January, 1920: Cases, 27; deaths, 14.
Cochin-China.....	do.....	18	9	January, 1920: Cases, 13; deaths, 10.
Tonkin.....	do.....	12	4	January, 1920: No cases.
<b>Philippine Islands:</b>				
Manila.....	May 22-June 25....	4		
Do.....	July 3-30.....	19	1	
Province—				
Batangas.....	June 12-18.....	2	1	
Do.....	July 3-16.....	6	3	
Cebu.....	June 26-July 2....	1		
Laguna.....	June 19-25.....	1		
Do.....	July 3-9.....	1	1	
Mindoro.....	June 12-18.....	1	1	
Pampanga.....	June 5-11.....	1	1	
Tarlac.....	June 19-25.....	1	1	
Union.....	June 26-July 2....	1		
<b>Poland:</b>				Present.
Baranowicze.....	Aug. 18.....			Do.
Bialystok.....	July 25.....			Do.
Pinsk.....	do.....			
<b>Russia.</b>				Jan. 1-July 13, 1921: Cases, 27,779. Of these, 24,000 reported in June, 1921.
Districts—				
Kazan.....	Jan. 1-July 13....	434		
Kharkov.....	do.....	257		
Kursk.....	do.....	528		
Moscow.....	do.....	296		City, 192 cases.
Orel.....	do.....	140		Voigda region.
Rjasan.....	do.....	129		
Saratov.....	do.....	7,005		Do.
Simbirsk.....	do.....	814		
Tambov.....	do.....	1,396		Do.
Voronezh.....	do.....	2,653		
Don Territory.....	do.....	2,356		
Kuban Territory.....	do.....	1,718		Black Sea region.
Petrograd.....	July 6.....	6		
Rostov-on-Don.....	June 1.....	747		Present on Orenburg-Tashkent line, and at Cheljabinsk, Perm, Petropavlovsk, Ufa, and in Smolensk and Vitebsk districts during period under report.
<b>Siam:</b>				
Bangkok.....	Apr. 24-June 11....	19	4	
Do.....	June 26-July 23....	3		
<b>Straits Settlements:</b>				
Singapore.....	June 12-18.....	1	1	

## **PLAGUE.**

<b>Algeria:</b>				
Aumale district.....	May 31-July 3....	71	22	Native district about 140 kilometers from Algiers.
Douar Meguine.....	May 31-Aug. 24....	185	97	
<b>Asia Minor:</b>				
Smyrna.....	June 19-25.....	1		In suburbs.
Do.....	July 3-30.....	3		
<b>Azores:</b>				
St. Michael Island—				
Capelas.....	Aug. 6-12.....	1	1	
Ribeira Grande.....	Aug. 6-27.....	19	6	
<b>Brazil:</b>				
Bahia.....	May 15-June 18....	3	2	
Maranhao.....	June 28.....	1	1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from July 2 to Sept. 30, 1921—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
British East Africa:				
Kenya Colony—				
Kisumu.....	Apr. 24-May 21....			Present.
Do.....	June 26-Aug. 6....			Do.
Uganda.....	Mar. 1-June 30....	133	101	Reports of native chiefs show 2,709 deaths during same period.
Cape Verde Islands:				
St. Vincent.....	Aug. 12-18.....	6	3	
Ceylon:				
Colombo.....	May 8-June 11....	2	2	
Do.....	June 26-July 30....	3	3	5 cases rodent plague.
China:				
Amoy.....	May 15-June 25....	7	2	
Do.....	July 3-Aug. 6....		31	
Foochow.....	May 15-21.....			Present.
Hongkong.....	Apr. 24-June 25....	81	59	May 1-7, 1921: Plague rat found.
Do.....	June 26-July 25....	27	19	
Manchuria—				
Harbin.....	May 3-22.....	46		
Ecuador:				
Guayaquil.....	May 1-June 15....	10	1	
Do.....	July 16-31.....	1		
Egypt:				
City—				Jan. 1-Aug. 18, 1921: Cases, 248; deaths, 105.
Alexandria.....	May 21-June 24....	10	3	
Do.....	July 1-Aug. 16....	21	5	
Port Said.....	June 16-27.....	4	2	
Do.....	July 1-Aug. 4....	12	6	
Suez.....	May 20-June 30....	9	5	1 case pneumonic.
Do.....	July 1-18.....	5	3	
Province—				
Assiout.....	May 24-June 16....	9	7	1 case septicemic.
Do.....	July 30.....	1		
Beni-Souef.....	July 10.....	1		
Gharbich.....	June 2-25.....	7		
Do.....	July 9-Aug. 7....	8		
Girgeh.....	July 6-13.....	5	4	
Minieh.....	May 28-June 10....	2	1	
Do.....	July 13-Aug. 18....	7	3	
Greece:				
Piræus.....	Sept. 23.....	3		
Hawaii:				
Kalapa.....	July 15-19.....	1	1	
Paaubau.....	May 21.....	1		
India:				May 1-June 25, 1921: Cases, 2,093; deaths, 1,624. June 26-July 23, 1921: Cases, 1,115; deaths, 820.
Bombay.....	May 1-June 25....	287	204	
Do.....	June 26-July 23....	26	19	
Calcutta.....	May 8-June 18....	11	11	
Do.....	July 24-Aug. 6....	23	21	
Karachi.....	May 8-June 25....	18	14	
Do.....	June 26-July 30....	2	2	
Madras Presidency.....	May 22-June 25....	112	72	
Do.....	June 26-Aug. 13....	384	242	
Rangoon.....	Apr. 24-June 25....	162	142	
Do.....	June 26-Aug. 6....	288	244	
Indo-China:				Jan. 1-31, 1921: Cases, 57; deaths, 51.
Saigon.....	May 23-June 12....	4	1	May 8-15, 1921: 1 plague rat.
Do.....				July 10-31, 1921: Rodent—Cases, 8.
Java:				
East Java—				
Soerabaya.....	July 10-16.....	4	2	
Madagascar:				
Tananarive.....	July 11.....			Present.
Mauritius:				
Port Louis.....	Aug. 24.....			Do.
Mesopotamia:				
Bagdad.....	Apr. 1-May 31....	32	35	
Mexico:				
Ciudad Victoria.....	June 7.....	1		In State of Tamaulipas: Case confirmed June 20, 1921.
Tampico.....	June 11-30.....	36		Infected rodents found, July 1-Sept. 4, 1921, 141.
Do.....	July 1-Aug. 21....	21	8	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from July 2 to Sept. 30, 1921—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Peru.....				Mar. 1-31, 1921: Cases, 76; deaths, 44. Apr. 1-30, 1921: Cases, 43; deaths, 20. June 1-30, 1921: Cases, 14; deaths, 10. July 1-15, 1921: Cases, 9; deaths, 3.
Department—				
Arequipa.....	Mar. 1-31.....	2		At Mollendo.
Callao.....	do.....	7	1	At Callao.
Lambayeque.....	do.....	2	1	At Chiclayo.
Libertad.....	do.....	12	7	In 5 localities.
Lima.....	do.....	32	16	At Lima city, 20 cases, 13 deaths.
Piura.....	do.....	21	19	At Payta, Piura, and Sullana.
Aneachs.....	Apr. 1-30.....	4	1	At Huarmey.
Arequipa.....	do.....	3	3	At Mollendo.
Callao.....	do.....	8		At Callao.
Lambayeque.....	do.....	1	1	At Chiclayo.
Libertad.....	do.....	16	5	In 5 localities.
Lima.....	do.....	6	3	In Lima city, 3 cases, 1 death.
Piura.....	do.....	5	7	At Payta, Sullana, and Talara.
Libertad—				
Salaverry.....	June 1-15.....	1		
Trujillo.....	do.....	2	3	
Lima—				
Lima.....	do.....	2	3	
Piura—				
Piura.....	do.....	1		
Talara.....	do.....	4	3	
Callao—				
Callao.....	June 16-30.....	1		
Do.....	July 1-15.....	5	1	
Lima—				
Lima.....	June 16-30.....	3	1	
Do.....	July 1-15.....	2	2	
Mollendo.....	do.....	2		
Poland.....				Department of Arequipa.
				In border Province, Aug. 9, 1921: Cases, 8.
Porto Rico.....				Total plague-infected rats found from beginning of outbreak to July 9, 1921, 90.
Caguas.....	Aug. 7-20.....	4	2	
Fajardo.....				Aug. 28-Sept. 3, 1921: One plague rat found.
Manati.....	July 17-23.....	1	1	
Martin Pena.....	July 3-9.....	1		Suburb coextensive with San-turce.
Portuguese West Africa:				
Angola—				
Loanda.....	Apr. 24-June 18.....	16		
Russia: Siberia—				
Vladivostok.....	May 1-31.....	141	145	
Senegal:				
Dakar.....	May 1-June 30.....	54	47	
Do.....	July 1-31.....	105	84	
Siam:				
Bangkok.....	Apr. 24-June 18.....	7	6	
Do.....	July 24-30.....	1	1	
Straits Settlements:				
Singapore.....	May 8-June 18.....	5	5	
Do.....	June 26-July 30.....	3	3	
Syria:				
Alexandretta.....	July 10-Aug. 6.....	18	4	
Beirut.....	May 31-June 30.....	2		
Do.....	July 1-31.....	8		
Turkey:				
Constantinople.....	July 10-16.....	1		
Union of South Africa.....				January-April, 1921: Cases (white), 6; deaths, 4. Cases (native), 13; deaths, 6. Occur-ring in the Orange Free State.
On vessels:				
Steamship Kishenev.....	May 2.....	1		At Chefoo, China. Plague death en route. Vessel sent to quar-antine, Kentucky Island, where to May 6 a total of 16 deaths was reported. (Public Health Reports, July 1, 1921, p. 1534.)

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from July 2 to Sept. 30, 1921—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
On vessels—Continued.				
Steamship Oreland.....				At Genoa, Italy, June 12, 1921; from La Plata, Argentina. Two fatal cases plague in crew en route.
Steamship Ralph Moller ...	June 8.....	4	1	At Chefoo, China, from Vladivostok, Siberia. Three fatal cases en route. One case with fatal termination removed at Vladivostok.
Steamship Tenyo Maru.....				En route between Nagasaki and Kobe, Japan, June 28, 1921, 1 fatal case.

## **SMALLPOX.**

Algeria:				
Algiers.....	May 1-June 30.....	3		
Asia Minor:				
Smyrna.....	May 22-28.....	1		On the steamship Nicholas.
Do.....	July 24-30.....	2		
Australia:				
Victoria—				
Geelong.....	May 5-16.....	2		Mild.
Melbourne.....	Apr. 9-23.....	4	1	Mild epidemic.
Bolivia:				
La Paz.....	Apr. 1-30.....	5	4	
Brazil:				
Pernambuco.....	Mar. 28-May 22.....	28	4	
Rio de Janeiro.....	May 8-June 18.....	11	2	
Do.....	June 26-July 30.....	21	5	
Sao Paulo.....	May 23-June 26.....	7	2	
Do.....	June 27-July 31.....	10	2	
British East Africa:				
Kenya Colony—				
Zanzibar.....	May 8-14.....	12	4	Origin, India.
Bulgaria:				
Sofia.....	May 15-31.....	6		
Canada:				
Alberta—				
Calgary.....	May 26-June 18.....	3		
British Columbia—				
Vancouver.....	May 28-June 25.....	8		
Manitoba—				
Winnipeg.....	.....do.....	6		
Do.....	June 26-Aug. 13.....	7		
New Brunswick—				
Charlotte County.....	July 10-Aug. 27.....	8		
Madawaska County.....	Aug. 7-13.....	1		
Restigouche County.....	June 19-25.....	1		
Westmoreland County.....	June 26-July 2.....	2		
Nova Scotia—				
Sydney.....	June 5-18.....	2		
Do.....	June 26-July 2.....	4		
Ontario—				
Fort William and Port Arthur.....	Aug. 7-27.....	2		
Hamilton.....	June 12-18.....	3		
Do.....	July 3-9.....	1		
Kingston.....	June 5-11.....	1		
London.....	June 5-25.....	2		
Montreal.....	June 12-18.....	1		
Do.....	July 17-23.....	1		
North Bay.....	June 11-25.....	3		
Do.....	June 26-July 9.....	2		
Ottawa.....	June 12-25.....	21		
Do.....	June 26-Aug. 13.....	35		
Toronto.....	Aug. 28-Sept. 10.....	2		
Chile:				
Antofagasta.....	May 16-June 19.....	228	106	
Arica.....	May 31.....	2		
Mejillones.....	May 30-June 5.....			
Valparaiso.....	June 26-July 2.....		4	Present. Also at interior nitrate plants.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from July 2 to Sept. 30, 1921—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....	May 8-June 4.....	.....	4	June 5-25: Present.
Do.....	June 16-July 2.....	.....	1	July 3-Aug. 6: Present.
Antung.....	May 16-June 26.....	12	2	
Canton.....	Apr. 1-30.....	.....	.....	Present.
Chungking.....	May 1-June 25.....	.....	.....	Do.
Do.....	June 26-Aug. 6.....	.....	.....	Do.
Foochow.....	May 8-June 25.....	.....	.....	Do.
Do.....	June 26-Aug. 6.....	.....	.....	Do.
Hankow.....	May 15-21.....	4	1	
Do.....	July 10-16.....	1	.....	
Hongkong.....	Apr. 24-June 25.....	99	84	
Manchuria—				
Dairen.....	May 9-June 26.....	44	5	
Do.....	June 27-Aug. 14.....	8	3	
Harbin.....	May 16-June 13.....	5	.....	
Do.....	June 27-July 10.....	2	.....	
Mukden.....	May 22-June 11.....	.....	.....	Do.
Do.....	July 3-Aug. 6.....	.....	.....	Do.
Nanking.....	May 8-June 25.....	.....	.....	Do.
Do.....	June 26-Aug. 13.....	.....	.....	Do.
Shanghai.....	June 20-26.....	1	.....	
Do.....	July 3-Aug. 6.....	2	1	
Tientsin.....	May 8-June 25.....	31	.....	Mission hospital.
Do.....	June 26-Aug. 6.....	7	1	
Tsingtau.....	May 9-June 12.....	4	1	
Do.....	July 25-31.....	1	.....	
Chosen (Korea):				
Chemulpo.....	May 1-June 30.....	11	3	
Fusan.....	.....do.....	12	3	
Gensan.....	.....do.....	5	2	
Seoul.....	.....do.....	3	.....	
Colombia:				
Santa Marta.....	June 5-25.....	.....	.....	Present.
Do.....	June 26-Aug. 27.....	.....	.....	Do.
Cuba:				
Antilla.....	June 5-25.....	7	.....	
Do.....	June 26-Aug. 27.....	69	.....	
Cienfuegos.....	June 26-Sept. 3.....	3	.....	
Matanzas.....	June 12-18.....	1	1	
Do.....	July 3-31.....	4	2	
Nuevitas.....	July 4-Sept. 11.....	8	.....	
Santiago.....	June 1-30.....	28	2	
Do.....	July 1-Aug. 31.....	31	1	
Dominican Republic.....				In eastern Provinces, Aug. 25, 1921, 2,000 cases, estimated.
La Ramona.....	Aug. 25.....	.....	.....	Cases numerous.
San Pedro de Macoris.....	Aug. 19-25.....	40	2	On sugar estates in same Province, about 400 cases.
Ecuador:				
Guayaquil.....	May 1-June 30.....	31	.....	
Do.....	July 1-31.....	19	1	
Egypt:				
Cairo.....	Mar. 19-Apr. 20.....	2	1	
Port Said.....	Apr. 2-May 20.....	10	.....	
Finland.....	May 1-15.....	1	.....	
France:				
Brest.....	May 22-June 4.....	18	.....	
Rouen.....	May 1-29.....	2	.....	
Germany.....				Apr. 24-May 28, 1921: Cases, 12. Additional, Apr. 17-May 7, 1921: Cases, 57; deaths, 7.
Great Britain:				
Nottingham.....	May 29-June 4.....	1	.....	
Do.....	July 3-Aug. 13.....	45	.....	Stated Aug. 17 to be epidemic and to have begun about two months previous to date; 57 cases reported.
Queenstown.....	July 3-9.....	1	.....	
Southampton.....	June 26-July 2.....	1	.....	
Greece:				
Saloniki.....	June 6-12.....	.....	1	
Haiti:				
Cape Haitien.....	June 19-25.....	24	2	
Do.....	June 26-Aug. 20.....	123	9	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 2 to Sept. 30, 1921—Continued.

## SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India.....				Mar. 20-May 21, 1921: Deaths, 3,232. June 5-25, 1921: Deaths, 958. July 3-9, 1921: Deaths, 210.
Bombay.....	May 1-June 25.....	84	50	
Do.....	June 26-July 23.....	36	27	
Calcutta.....	May 8-June 25.....	8	8	
Do.....	June 26-July 16.....	5	5	
Karachi.....	May 29-June 25.....	25	17	
Do.....	June 26-July 30.....	8	2	
Madras.....	May 8-June 25.....	33	11	
Do.....	June 26-Aug. 13.....	26	14	
Rangoon.....	Apr. 24-June 4.....	20	3	
Do.....	July 10-Aug. 6.....	3	1	
Indo-China.....				Jan. 1-31, 1921: Cases, 102; deaths, 15.
City—				
Saigon.....	May 9-15.....	2	1	
Province—				
Anam.....	Jan. 1-31.....	35		January, 1920: Cases, 16; deaths, 3.
Cambodia.....	do.....	21	3	January, 1920: Cases, 139; deaths, 54.
Cochin China.....	do.....	19	12	January, 1920: Cases, 8; deaths, 1.
Tonkin.....	do.....	27		January, 1920: Cases, 224; deaths, 43.
Italy:				
Catania.....				Province: June 6-20, 1921: Case: 5.
Do.....	July 18-Aug. 14.....			In Province: Cases, 7.
Genoa.....	Apr. 1-May 31.....	11		
Do.....	July 4-10.....	2		
Messina.....	May 23-June 26.....	2	1	
Do.....	July 11-17.....	1		In Province, July 4-17, 1921: Cases, 9.
Palermo.....	May 18-June 21.....	7	1	
Milan.....	Apr. 1-30.....	2		
Do.....	June 29-July 19.....	3		
Japan:				
Kobe.....	May 24-June 26.....	3		
Nagasaki.....	May 23-June 26.....	6	1	
Taiwan Island.....	July 1-10.....	1		
Java:				
East Java—				
Soerabaya.....	June 19-25.....	2		
Do.....	July 10-23.....	8		
West Java—				
Bandoeng.....	May 27-June 3.....	1		
Do.....	July 8-21.....	1		
Batavia.....	May 6-June 23.....	17	15	
Do.....	July 1-21.....	6	6	
Buitenzorg.....	Apr. 29-June 23.....	16		
Garoot.....	May 6-12.....	1		
Do.....	July 8-14.....	1		
Krawang.....	Apr. 29-June 30.....	33	5	
Lebak.....	Apr. 29-May 26.....	12	2	
Pandeglang.....	June 3-30.....	2	1	
Do.....	July 8-14.....	1		
Jugoslavia.....				Mar. 14-May 13, 1921: Cases, 334; deaths, 83. June 27-July 10, 1921: Cases, 111; deaths, 27.
Mesopotamia:				
Bagdad.....	Apr. 1-May 31.....	3	1	
Mexico:				
Tampico.....	July 11-20.....	1		
Chihuahua.....	May 23-June 27.....		3	
Mexico City.....	May 15-June 25.....	246		Including municipalities in Federal District.
Do.....	June 26-Aug. 13.....	149		Do.
San Luis Potosi.....	July 17-Aug. 6.....		2	
Vera Cruz.....	June 13-19.....		1	
Do.....	July 11-Aug. 7.....		2	
Newfoundland:				
Tilton.....	Aug. 29-26.....	3		
Panama.....				Jan. 1-July 25, 1921: Cases, 200, of which 33 were nonresidents.
Canal Zone.....	Jan. 1-June 10.....	2		
Colon.....	do.....	111		
Do.....	Aug. 30.....	1		From the interior.
Panama.....	Jan. 1-Aug. 11.....	55		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from July 2 to Sept. 30, 1921—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Poland.....				Mar. 1-Apr. 30, 1921: Cases, 1,117; deaths, 142.
District—				
Bialystok.....	Mar. 1-Apr. 30.....	3		
Cracovia.....	do.....	56	6	
Kielce.....	do.....	180	26	
Leopol.....	do.....	52	16	
Lodz.....	do.....	72	9	
Lublin.....	do.....	397	30	
Posen.....	do.....	26	2	
Silesia.....	do.....	10		In Teschen.
Stanislavow.....	do.....	30	5	
Tarnopol.....	do.....	155	31	
Warsaw.....	do.....	36	4	
Warsaw City.....	do.....	90	13	
Portugal:				
Lisbon.....	May 15-June 25.....		34	
Do.....	June 26-Aug. 20.....	23	2	
Oporto.....	June 19-25.....	1		
Portuguese East Africa:				
Lourenco Marques.....	May 8-28.....	8		
Do.....	July 10-16.....	4		
Rumania:				
District—				
Hotin.....	Apr. 1-30.....	40	9	
Orthel.....	Mar. 1-31.....	2		
Russia:				
Province—				
Esthonia.....	Apr. 1-June 30.....	9		
Latvia.....				
Riga.....	Apr. 1-May 31.....	41		
Siberia.....				
Vladivostok.....	June 1-30.....	1		
Senegal:				
Dakar.....	May 1-31.....	1	1	
Spain:				
Barcelona.....	May 12-June 22.....		13	
Do.....	July 7-20.....		4	
Huelva.....	July 1-31.....		2	
Madrid.....	June 1-30.....	2		
Malaga.....	May 1-June 30.....		57	
Do.....	July 1-31.....		33	
Tarragona.....	May 9-15.....		1	
Valencia.....	May 22-28.....	1		
Do.....	July 2-Aug. 20.....	9	2	
Straits Settlements:				
Singapore.....	June 12-18.....	1		
Do.....	July 10-23.....	2	1	
Switzerland:				
Zurich.....	May 28-June 11.....	10		
Do.....	July 3-16.....	3		
Syria:				
Aleppo.....	Apr. 9-16.....			Present.
Beirut.....	May 10-30.....	1	1	
Tunis:				
Tunis.....	May 30-June 17.....	2	3	
Do.....	July 2-Aug. 26.....	9	8	
Turkey:				
Constantinople.....	June 12-25.....	5		
Do.....	June 26-Aug. 13.....	8	1	
Union of South Africa.....				January-April, 1921: Cases (white), 18; deaths, 1. Cases (native), 192; deaths, 5. May 1-31, 1921: Cases, 65; deaths, 3, all natives. June 1-30, 1921: Cases, 64, of which 1 white.
Cape Province.....	Apr. 24-June 25.....			Outbreaks.
Do.....	June 26-July 31.....			Do.
Natal.....	Apr. 24-June 25.....			Do.
Do.....	July 10-23.....			Do.
Orange Free State.....	May 29-June 25.....			Do.
Southern Rhodesia.....	July 14-20.....	27		
Transvaal.....	May 22-June 18.....			
Do.....	July 3-31.....			Do.
On vessel:				
Steamship Niagara.....	June 1.....	1		At Sydney, Australia, from Vancouver via Fiji and New Zealand.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 2 to Sept. 30, 1921—Continued.

## TYPHUS FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Algeria:				
Algiers.....	May 1-June 30....	109	25	
Do.....	July 1-31.....	19	5	
Oran.....	May 22-June 30....	35	28	
Do.....	July 1-31.....	15	12	
Asia Minor:				
Smyrna.....	June 12-18.....	1		In district.
Bolivia:				
La Paz.....	Apr. 1-June 30....	50	51	
Do.....	July 1-31.....	19	3	
Brazil:				
Bahia.....	June 19-25.....	1	1	
Porto Alegre.....	do.....		3	
Do.....	Aug. 7-13.....		1	
Chile:				
Concepcion.....	Apr. 12-June 20....		8	July 25-Aug. 1, 1921: In hospital,
Do.....	July 12-Aug. 8.....		10	30 cases; in city, estimated,
				100 cases.
Los Angeles.....	July 26-Aug. 8.....			Prevalent.
Valparaiso.....	Mar. 27-May 28....		4	
Do.....	June 26-July 2.....		2	
China:				
Antung.....	May 30-June 5.....	1		
Do.....	June 27-July 31....	7		
Hankow.....	May 22-June 11....	3		
Manchuria—				
Harbin.....	May 23-29.....	1		
Do.....	July 4-10.....	1		
Chosen (Korea):				
Chemulpo.....	June 1-30.....	2		
Fusan.....	May 1-31.....	1		
Gensan.....	May 1-June 30.....	4		
Seoul.....	May 1-31.....	1		
Czechoslovakia:				
Prague.....	June 5-26.....	5	2	
Egypt:				
Alexandria.....	May 21-June 23....	21	8	
Do.....	June 24-Aug. 26....	26	10	
Cairo.....	Mar. 19-June 24....	235	102	Correction.
Port Said.....	Apr. 2-May 13.....	8	2	
Finland.....	May 1-15.....	5		
Germany.....				Apr. 24-June 4, 1921: Cases, 7.
Hamburg.....	May 27-June 4.....	1		
Great Britain:				
Dublin.....	May 29-June 4.....	1		
Greece:				
Saloniki.....	May 23-June 26....	21	6	
Do.....	June 27-Aug. 14....	1	2	
Guatemala:				
Guatemala City.....	July 1-31.....		1	
Hungary.....				Jan. 1-July 13, 1921: Cases, 71,
				occurring in 4 counties.
Japan:				
Nagasaki.....	May 23-June 5.....	7	2	
Jugoslavia:				Jan. 30-Mar. 26, 1921: Cases, 242;
Belgrade.....	May 1-14.....	6		deaths, 36. June 27-July 10,
Zagreb.....	June 19-25.....	3		1921: Cases, 23; deaths, 7.
Do.....	July 10-16.....	2		
Mesopotamia:				
Bagdad.....	May 1-31.....	1	3	
Mexico:				
Mexico City.....	May 15-June 25....	102		Including municipalities in Fed-
Do.....	June 26-Aug. 13....	105		eral District.
San Luis Potosi.....	July 31-Aug. 6.....			Present.
Poland.....				Mar. 1-Apr. 30, 1921: Cases:
District—				11,489; deaths, 1,131.
Bialystok.....	Mar. 1-Apr. 30....	853	45	
Cracovia.....	do.....	603	90	
Kielce.....	do.....	848	62	
Leopold.....	do.....	2,508	277	
Lodz.....	do.....	321	53	
Lublin.....	do.....	1,446	83	
Posen.....	do.....	77	5	
Silesia.....	do.....	96		In Teschen.
Stanislawow.....	do.....	1,557	232	
Tarnopol.....	do.....	1,855	194	
Warsaw.....	do.....	972	61	
Warsaw city.....	do.....	223	29	
Portugal:				
Oporto.....	July 12-Aug. 20....	2		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from July 2 to Sept. 30, 1921—Continued.**

## **TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Rumania:				
District—				
Hotin.....	Apr. 1-30.....	107	10	
Kishinev.....	Apr. 1-June 30.....	89		
Do.....	July 1-31.....	11		District.
Orhei.....	Mar. 1-May 30.....	146		
Russia:				
Province—				
Esthonia.....	Apr. 1-June 30.....	113		
Latvia.....	do.....	599		
Siberia—				
Vladivostok.....	Mar. 1-June 30.....	5	3	
Spain:				
Madrid.....	May 1-June 30.....		3	
Syria:				
Beirut.....	May 20-June 10.....	1	1	
Tunis:				
Tunis.....	June 11-17.....		3	
Do.....	July 30-Aug. 5.....		1	
Turkey:				
Constantinople.....	May 22-June 18.....	11		
Do.....	June 26-Aug. 20.....	27	1	
Union of South Africa				January-April, 1921: Cases (white), 34; deaths, 2. Cases (native), 3,376; deaths, 437. June 1-30, 1921: Cases, 738; deaths, 66.
Cape Province.....				Apr. 24-June 25, 1921. Outbreaks May 1-31, 1921: Cases, 542; deaths, 51. June 26-July 31, 1921: Outbreaks.
Capetown.....	May 13-19.....	10	3	At native cantonment in vicinity.
East London.....	May 22-June 18.....	1	1	Outbreaks.
Natal.....	July 10-23.....			Outbreaks.
Orange Free State.....				Apr. 24-May 28, 1921: Outbreaks.
Do.....	July 10-31.....			Outbreaks.
Venezuela:				
Maracaibo.....	June 21-27.....		1	
On vessel:				
Steamship Norden.....	Aug. 18.....	1		At Marcus Hook Quarantine, Pa., from Tampico, Mexico, via Nuevitas, Cuba.

## **YELLOW FEVER.**

British Honduras:				
Belize.....	Aug. 22-Sept. 9.....	17	5	
Mexico:				
Alamo.....	June 1-30.....	10		State of Vera Cruz.
Do.....	July 19.....	4	1	
Barra de Penn Mex.....	July 17-23.....	1	1	Do.
Casamalcapam.....	do.....	3	1	Do.
Manzanillo.....	Sept. 13.....			Present. June 1 to Sept. 9, 1921: Cases, 18; deaths, 10.
Playa Obispo.....	Aug. 23.....	1		Territory of Quintana Roo.
Tampico.....	July 11-17.....	3	2	State of Tamaulipas.
Tuxpam.....	July 25.....	1	1	State of Vera Cruz.
Vera Cruz.....	June 13-27.....	7		Do.
Do.....	July 25-31.....		1	Do.
Zapotal.....	July 14.....	1	1	Do.
Peru:				
Department—				
Lambayeque—				
Chiclayo.....	Mar. 1-31.....	20	10	Mar. 1-31, 1921: Cases, 66; deaths, 25. Apr. 1-30, 1921: Cases, 106; deaths, 32, in 13 localities.
Chongollape.....	do.....	2	2	June 1-30, 1921: Cases, 25; deaths, 13. July 1-15, 1921: Cases, 2.
Ferreñafe.....	do.....		1	
Lambayeque.....	do.....	15	5	
Monsefu.....	do.....	18	4	
Motupe.....	do.....	1	1	
Pomalea.....	do.....	5	1	
Villa Eten.....	do.....	5	1	
Callao—				
Callao.....	Apr. 1-30.....	1		At quarantine station. From Chiclayo.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 2 to Sept. 30, 1921—Continued.

## YELLOW FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Peru—Continued.				
Department—Continued.				
Lambayeque—				
Chiclayo.....	Apr. 1-33.....	23	5	
Chongollape.....	do.....	10	1	
Jayanca.....	do.....	5	2	
Lambayeque.....	do.....	5	2	
Monsefu.....	do.....	8	5	
Motupe.....	do.....	45	11	
Olmos.....	do.....	2	4	
Villa Eten.....	do.....	2		
Zana.....	do.....	1		
Libertad—				
Guadalupe.....	do.....	2		
Pueblo Nuevo.....	do.....	1	1	
Trujillo.....	do.....	1	1	Country.
Lambayeque—				
Chiclayo.....	June 1-15.....	4	3	
Monsefu.....	do.....	3		
Pacora.....	do.....	1		
Libertad—				
Casa Grande.....	do.....	1		Farm.
Pacanga.....	do.....	1	1	
Paijan.....	do.....	3	4	
Trujillo.....	do.....	1	1	
Libertad—				
Pacasmayo.....	July 1-15.....	1		
Pacanga.....	June 16-30.....	1	1	
Paijan.....	do.....	10	3	
Do.....	July 1-15.....	1		
On vessel:				
Steamship Lurline.....	Aug. 13-27.....	2	1	At Mazatlan, Mex., from Manzanillo, Mex. (Public Health Reports, Sept. 16, 1921, p. 2292).
Steamship Washington....	Aug. 29.....	1		At Mazatlan, Mexico.

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